

TTCGAAGAGT ATTAGTACAT TCTTTGAGAT TGGAGCTAGT ATGAAAATCC ATAAAACCGT	4500
GAATCCTGTT GCCTATGAAA ATACCTATTA TCTAGAAGGC GAAAAGCACC TCATCGTCGT	4560
CGATCCTGGT AGTCATTGGG AAGCCATTCTG TCAGACAATC GAGAAGATCA ACAAACCGAT	4620
CTGTGCTATT CTCTTGACCC ACGCCCATTA TGACCATATC ATGAGTCTGG ACTTGGTTCTG	4680
CGAGACGTTT GGCAATCCTC CTGTCTATAT CGCAGAGAGC GAAGCCAGCT GGCTCTACAC	4740
TCCTGTCGAT AATCTCTCCG GTCTCCCTCG CCACGATGAT ATGGCAGATG TGGTCACAAA	4800
ACCTGCAGAA CACACCTTTG TCTTTCACGA AGAATACCAA CTAGAGGAAT TTCGTTTAA	4860
GGTTCACCG ACCCCAGGGC ACTCTATCGG TGGTGTTCCT CTAGTCTTTC CTGATGCTCA	4920
TCTAGTCTTG ACGGGAGATG CTCTATPCCG CGAAACTATC GGACGGACCG ACCTCCGAC	4980
TGGTAGCATG GAGCAACTCC TTCATAGTAT CCAGACCCAA CTCTTCACCC TACCAAACTA	5040
CGATGTCTAT CCAGGACATG GTCCAGCTAC TACTATCGCT CACGAAAAGG CCTTCAATCC	5100
CTTTTCTAG CAAGATGATG ACAATCGAAA TTTAAGTAAA CTATCCAGCA AATCTTTCTA	5160
TTACAAAAGG CATCCTATCA AGGTTTTCAC ACATGATTGG ATGCCTTTTT TCTGATGACT	5220
AGATTTTTTG CATTACCAA TAATCACGCG CTCCTCTGGT GAACGCCACA TTCCGTCTCC	5280
TTCTTTGACA TCATAGGTTG TAAAGAAATC GTCGAAGTTT GGTACTTGCA CATTGACACG	5340
GAGTTTGGCT GGTGCGTGCA CATCGACGCT AGCCAAAAGT TTCATAAAT CTGGTCGACC	5400
TTTCATGCGC CAGATGCGAC CGAAGTTGTA GAAGAACTCT TCTGCTGAGA AGTCTGCTTC	5460
TCTCTTAGCT GCTTCAAGCG CTGCTGCGAT TCCTCCCAAG TCAGCCACGT TTTCTGATAC	5520
AGTCAATTTA CCGTTAATGG TTGCTCCATA AGAATCCTGT CCATCAAAT GGTCAATGAC	5580
TTTTTGTTT TTCTCCTTGA AGGCAGCATA GTCGCTCTCT GTCCACCAAT CCTTGAGGCT	5640
ACCATTTTCG TCAAAGGAAG CCCCCTTAGT ATCAAAGGCG TGGGAAATTT CATGGGCAAT	5700
CACTGCCCCA ATACCACCGT AGTTAGCAGA AGATGACTGA TGCAAGTCAT AGAAAGGCGC	5760
CTGTAAAATG GCCGCTGGAA AGACAATCAG GTTCTTCTGA GGATTGTAGT AGGCATTGAC	5820
CATATGAGCA GGCATGCCCC ATTCCTTATA ATCTACAGGC TGGTCCACT TACTCCAAT	5880
GTGCTTGATT TCCACACGCG CAAAGGCTAG AGCATTTCTA AAAAGACTGG CAGTTTCATT	5940
CACTACCTTA TCCTTGTAA GTGCAGGCAA TTCTTCTGGA TAGCCAATAT AAGGTTTGAT	6000
CACATTGAGC TTCACGATAG CCTGTTTACA GGTTCCTGGA GTGAGCCAGT CATTCTTAAG	6060
CAGACGCTCC TTATAACAT CAATCATGGT TGCCACTTTT TTCTCCACAT CCGCCTTGGC	6120
TTCTGGAGAG AACTTCTCAC GGGCGTACCA AAGACCCAGG GCTTGCTTGA AAGTTCTTG	6180

850

TGCTAGATGA TAAGCTGCTT TGACCTTATC TTTTGCCTCT GGAAGTCCAG AAAGGGCACG	6240
GCTGTAGGCA CCAGACAAAA CACGGATATC CTCTGTTAAA TAGCTGGTTG AAAGATTGAC	6300
AACACTCAAA ATCAAGGTTG CTTTAAGGAG AGACCAGGCT TCCTCACTGT AGAATTGCTC	6360
TGCTGCTTGC CAGAAACGTT CCTCGTCTAC AATAACCTTG TCTGGTAATT GCCCAATAAC	6420
TGCTTTGAAG AAGTCATCCA AAGGTAGGGC AGGCGCGAAT TTCTTGAAAT CTTGTAAGA	6480
ATATGGATGA TAGAGTTTAG CATATTCTGA ACTTTCTTCA TTAGAGAGCA CCACTGCCGC	6540
AACTCGGCGG TCCAATTCAA GTCTTTTTTC TAGCAAGTCT TCAATTCTT CATCAGAGAA	6600
ATCATAAGCC TTGAGGAGAT TTGCGCTGCT TTCTTTCCAA AGAGTCAAGA GCTCTTCGCG	6660
CTGAGGATGT TCTTCTGCAT AGTAGGTCGT ATCTGGCAAG ATTGTGCTTG GAGCGCTAGC	6720
CCATAGAACA TTGATTCTAG CATCCATAAA GTCTGGCGAT ACACCAAAG GAAGGAAGTT	6780
TGGTTTTCTT GCAAGCTCAA ACTCTGCTAG TTTAGCTGTA AAATCCGCA AAGTCTCCAA	6840
TTCTTGGAAT TCTTTAAGGA GTGGTAAGAC AGGTGTGATA CCGTCAGCTT CTCTCTGTG	6900
AAAATCACGA ACTAGGCGGT GGTATTTGAC AAAGTTTTCC AAGATAGCAT CCTCAGGCAC	6960
TTCTTCACCT GCTAACCACT TGTCTGTTGT CGCCAGCATC AGGTCTTCAA TTTCCTGGTC	7020
TAAATCAACA AAACCTCCTG TTTGAGACTT ATCTGCTGGG ATTTCACTG TCTGTTGCCA	7080
TTCTCCATTG ATAGCATCAT AAAAATCATC TTGATAACGT GTCATCTGT TCTCGCTTTC	7140
ATTTGTATTT GCATTTATCT TAACAAAAAT CG	7172

(2) INFORMATION FOR SEQ ID NO: 121:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4518 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

CGGGAAGTTA TCGATCTAG ACTTCGTTCC TGTACAGCTA CTTTCTCAGG TGGTCTTGTT	60
GTTTGATGA GTTTGTTTAG AGAGGATCTT TCTATGCTTT TCTTTCTTAT TTTTGTTTTA	120
TATGCTTTTC TGATTCTTA TCTAATTTAT GGTTATTTCA GACTAAAAAG GAAATACCGA	180
GTAGATGAAT AGCAAGGTTT TAGGTCTTCA GATTGATTTT TAGCACTCTT GATAAAAGAG	240
TGCTAATTTT TTGAGTTTTT GTCTTGACAT TCTCTTCTAA GGGTGATATA TAGAATCATG	300
AGTTAGCACT TGGATGCATT GAGTGCTAAT TGATCAGACA GAGAGGAGTG ATGAGATGGT	360
TACAGAGCGT CAGCAGGATA TTTTAAATCT GATTATTGAC ATCTTTACCA AAACGCACGA	420

851

ACCTGTCGGA TCAAAAGCCT TGCAAGAGTC TATTAAGTCT AGCAGTGCAA CCATTCGTAA	480
TGACATGGCG GAACTAGAAA AACAAAGGTT GCTTGAGAAG GCTCATACTT CAAGTGGTCG	540
GATGCCAAGT GTTGCTGGTT TTCAGTACTA TGTGAAACAC TCACTGGATT TTGACCGGCT	600
GGCTGAAAAT GAGGTATATG AGATTGTCAA AGCCTTTGAT CAGGAATTCT TCAAATTGGA	660
GGATATTCTG CAAGAGGCTG CTAAGTTACT AACAGACCTG AGTGGCTGTA CGGTAGTGGC	720
ACTGGATGTT GAGCCGAGCA GGCAACGTTT GACAGCCTTT GATATCGTTG TTTTGGGGCA	780
ACATACAGCC TTGGCGGTAT TTACCTTAGA CGAGTCGCGA ACGGTTACTA GTCAGTTTCT	840
GATTCCAAGG AACTTCTTGC AGGAGGATTT GCTGAACTG AAGAGCATCA TTCAGGAACG	900
TTTCCTCGGT CACACCGTTT TAGATATTCA CTACAAGATT CGGACGGAGA TTCCGCAGAT	960
TATCCAGCGT TACTTTACAA CAACGGATAA TGTCATCGAT CTCTTTGAAC ACATCTTTAA	1020
GGAAATGTTT AACGAAAACA TTGTGATGGC GGGCAAGGTC CATCTCTTGA ATTTTGCCAA	1080
TCTAGCAGCC TATCAGTTCT TTGACCAACC GCAAAGGTG GCCTTGAGGA TTCGTGAGGG	1140
GTTGCGTGAG GATCAGATGC AAAATGTTTC TGTTCAGAC GGTCAAGACT CCTGTTTAGC	1200
TGACCTAGCG GTAATCAGTA GTAAGTTCCT CATTCTTAT CGGGGAGTGA GAATTCTAGC	1260
CATTATCGGT CCAGTTAATC TGGATTACCA ACAGCTAATC AATCAAGTCA ATGTGGTCAA	1320
CCGTGTTTTC ACCATGAAGT TGACAGATTT TTACCGCTAC CTCAGCAGTA ATCATTACGA	1380
AGTACATTAA GATTGAAATC ATTAAGGAG GCGAACATGG CCCAAGATAT AAAAAATGAA	1440
GAAGTAGAAG AAGTTCAAGA AGAGGAAGTT GTGAAAACAG CTGAAGAAAC AACTCCTGAA	1500
AAGTCTGAGT TGGACTTGGC AAATGAACGT GCAGATGAGT TCGAAAACAA ATATCTTCGC	1560
GCTCATGCAG AAATGCAAAA TATCCAACGC CGTGCCAATG AAGAACGTCA AACTTGCAA	1620
CGTTATCGTA GCCAGGACTT GGCAAAAGCA ATCTTACCAT CTCTTGACAA CCTTGAGCGT	1680
GCACTTGCGT TTGAAGGTTT GACAGATGAT GTGAAGAAGG GCTTGGGGAT GGTGCAAGAA	1740
AGCTTGATTC ACGCTTTGAA AGAAGAAGGA ATTGAAGAAA TCGCAGCAGA TGGCGAATTT	1800
GACCATAACT ACCATATGGC CATCCAACT CTCCCAGCAG ACGATGAACA CCCAGTAGAT	1860
ACCATCGCTC AAGTCTTTCA AAAAGGCTAC AACTCCATG ACCGCATCCT ACGCCCAGCA	1920
ATGCTAGTGG TGTATAACTA AGATATAAAG CCCGTAAAAA GCTCGCAGTA AAAATAGGAG	1980
ATTGACGAAG TGTTCGATGA ACACAAGAAA ATCTATCTTT TTTACTCAGA GCTTAGGGCG	2040
TGTTTCGATTC GGCAATTCTG ACGGTAGCTA AAGCAACTCG TCAGAAAACG GCAATCGCTA	2100
TGGCGTTTGC CTAGCTTCCT TACTAACTCG TCGTCGAAAT AAAATCGATT TCGACTCCTC	2160

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GTGTCGCAAT TTACATAATA GAAAACTTGT CCGAAACGAC AATAAACTAT GAAGAAAGAT	2220
AAAAATATGTT TGGCTTTGTA ATAGTGAGCG AAGCGAACCA AACACGATAC TCTTCGCCGT	2280
GGCGCTATTT GCGCAAATTT TGAGACCTTA GGCTCAAAGT TTAGTCAAAG AGATTGACGA	2340
AGTCAAGCTC TGACGGCGTC GCCACTGTCT CCACTTAAGA AGAGTATCAA AAAGAAAAAT	2400
AGAAAATTAA CTAACAAGGA GAAAAACACA TGTCTAAAAT TATCGGTATT GACTTAGGTA	2460
CAACAAACTC AGCAGTTGCA GTTCTTGAAG GAACTGAAAG CAAAATCATC GCAAACCCAG	2520
AAGGAAACCG CACAACCTCA TCTGTAGTCT CATTCAAAA CGGAGAAATC ATCGTTGGTG	2580
ATGCTGCAAA ACGTCAAGCA GTTACAAACC CAGATACAGT TATCTCTATC AAATCTAAGA	2640
TGGGAAGCTC TGAAAAAGTT TCTGCAATG GAAAAGAATA CACTCCACAA GAAATCTCAG	2700
CTATGATCCT TCAATACTTG AAAGGCTACG CTGAAGACTA CCTTGGTGAG AAAGTAACCA	2760
AAGCTGTAT CACAGTTCG GCTTACTTCA ACGACGCTCA ACGTCAAGCA ACAAAGACG	2820
CTGGTAAAT TGCTGGTCTT GAAGTAGAAC GTATTGTAA CGAACCAACT GCAGCAGCTC	2880
TTGCTTATGG TTTGGACAAG ACTGACAAAG AAGAAAAAT CTGGTATTT GACCTTGGTG	2940
GTGGTACATT CGACGTCTCT ATCCTTGAAT TGGGTGACGG TGTCTTCGAC GTATTGTCAA	3000
CTGCAGGGGA CAACAACTT GGTGGTGACG ACTTTGACCA AAAAATCATT GACCACTTGG	3060
TAGCAGAATT CAAGAAAGAA AACGGTATCG ACTTGTCTAC TGACAAGATG GCAATGCAAC	3120
GTTTGAAAGA TGCGGCTGAA AAAGCGAAGA AAGACCTTC TGGTCTAACT TCAACACAAA	3180
TCAGCTTGCC ATTTATCACT GCAGGTGAGG CTGGACCTCT TCACTTGGAA ATGACTTTGA	3240
CTCGTGCGAA ATTTGACGAT TTGACTCGTG ACCTTGTGTA ACGTACAAAA GTTCCAGTTC	3300
GTCAAGCCCT TTCAGATGCA GGTTTGAGCT TGTGAGAAAT CGACGAAGTT ATCCTTGTG	3360
GTGGTTCAAC TCGTATCCCT GCCGTGTGTTG AAGCTGTTAA AGCTGAACT GGTAAAGAAC	3420
CAACAAATC AGTAAACCCT GATGAAGTAG TTGCTATGGG TGCGGCTATC CAAGTGGTG	3480
TGATTACTGG TGATGTCAAG GACGTTGTCC TTCTTGATGT AACGCCATTG TCACTTGGTA	3540
TCGAAACAAT GGGTGGAGTA TTTACAAAC TTATCGATCG CAACACTACA ATCCCAACAT	3600
CTAAATCACA AGTCTTCTCA ACAGCAGCAG ACAACCAACC AGCCGTTGAT ATCCACGTTT	3660
TTCAAGGTGA ACGCCCAATG GCAGCAGATA ACAAGACTCT TGGACGCTTC CAATTGACTG	3720
ATATCCCAGC TGCACCTCGT GGAATTCCTC AAATCGAAGT AACATTTGAC ATCGACAAGA	3780
ACGGTATCGT GTCTGTTAAG GCCAAAGACC TTGGAAGTCA AAAAGAACAA ACTATTGTCA	3840
TCCAATCGAA CTCAGGTTTG ACTGACGAAG AAATCGACCG CATGATGAAA GATGCAGAAG	3900
CAAACGCTGA AGCCGATAAG AAACGTAAAG AAGAAGTAGA CCTTCGTAAT GAAGTAGACC	3960

853

AAGCAATCTT TGC GACTGAA AAGACAATCA AGGAAACTGA AGGTAAAGGC TTCGACGCAG	4020
AACGTGACGC TGCCCAAGCT GCCCTTGATG ACCTTAAGAA AGCTCAAGAA GACAACAACT	4080
TGGACGACAT GAAAACAAA CTTGAAGCAT TGAACGAAAA AGCTCAAGGA CTTGCTGTTA	4140
AACTCTACGA ACAAGCCGCA GCAGCGCAAC AAGCTCAAGA AGGAGCAGAA GGCGCACAAAG	4200
CAACAGGGAA CGCAGGCGAT GACGTCGTAG ACGGAGAGTT TACGAAAAAG TAAGATGAGT	4260
GTATTGGATG AAGAGTATCT AAAAAATACA CGAAAAGTTT ATAATGATTT TTGTAATCAA	4320
GCTGATAACT ATAGAACATC AAAAGATTTT ATTGATAATA TTCCAATAGA ATATTTAGCT	4380
AGATATAGAG AATTATATTA GCTGAACATG ATAGTTGTAT CAAAAATGAT GAAGCGGTAA	4440
GGAATTTTGT TACCTCAGTA TTGTTGTCTG CATTGTATC GGCGATGGTA CCGTATCTGA	4500
CGAACGTTCA GCTTATAT	4518

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8145 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TGCTATTTTC GATTCCCTTG GGCCTTTTGA TTGCCTTTGC CTTGCAAGTC CATTGGAAGC	60
CCCTCCATTA TCTGATTAAC ATTTACATCT GGGTTATGCG AGGAACCCCC TTACTCTTGC	120
AACTGATTTT TATCTATTAT GTGCTCCCAA GTATTGGGAT TCGTTTAGAC CGCCTTCCTG	180
CAGCTATTAT TGCCTTTGTT CTCAACTATG CAGCTTACTT TGCAGAAATT TTCCGTGGGG	240
GAATTGACAC TATTCCAAGA GGACAGTATG AGGCCGCCAA GGTCTTGAAG TTTAGCCCTT	300
TTGACAGAGT GCGCTATATT ATCTTGCCCC AAGTGACCAA GATCGTTCTT CCTAGTGTCT	360
TTAATGAAGT TATGAGTTTG GTCAAGGATA CTTCTTTGGT CTATGCTCTC GGAATTCAG	420
ACCTTATCTT GGCTAGTCGA ACAGCTGCTA ACCGCGATGC TAGTCTAGTT CCTATGTTCT	480
TGGCAGGAGC CATTTATTTG ATTTGATTG GGATTGTGAC AATTATTTCC AAAAAAGTTG	540
AGAAGAAGTA TAGTTATTAT AGATAGGAGG CTGCCATGTT AGAATTACGA AATATCAATA	600
AAGTCTTTGG AGACAAACAA ATCCTGTCTA ATTTCAGTCT AAGTATTCCT GAAAAGCAAA	660
TCCTGGCTAT CGTTGACCT TCTGGTGAG GTAAGACAAC TCTTTTACGT ATGCTTGCAG	720
GTCTTGAAAC CATTGATTCA GGGCAAATCT TTTATAATGG ACAACCTTTA GAGCTGGATG	780

854

AATTGCAGAA GCGCAATCTA CTGGGATTG TCTTCCAAGA TTTTCAACTA TTTCTCATC	840
TATCAGTTCT GGAAAATTG ACTTTATCGC CTGTGAAGAC CATGGGAATG AAGCAGGAAG	900
AGGCTGAGAA GAAGGCGAGT GGACTCTTGG AACAGTTAGG ACTAGGAGGA CACGCAGAGG	960
CCTATCCTTT CTCACTATCT GGTGGGCAAA AGCAGCGGGT GGCTTTGGCG CGTGCTATGA	1020
TGATTGACCC AGAAATCATT GGCTACGATG AACCAACTTC TGCCCTGGAT CCAGAATTAC	1080
GTTTGGAAGT GGAGAAGCTA ATCTTGCAAA ATAGGGAAGT TGGGATGACC CAGATTGTGG	1140
TTACCCATGA TTTGCAGTTT GCTGAAAATA TCGCAGATGT ATTATTGAAA GTAGAACCTA	1200
AATAGGAGGA AAAATGGATG AAAAAATGGA TGCTTGATT AGTCAGTCTG ATGACTGCTT	1260
TGTTCTTAGT AGCTTGTTGG AAAAATTCTA GCGAACTAG TGGAGATAAT TGGTCAAAGT	1320
ACCAGTCTAA CAAGTCTATT ACTATTGGAT TTGATAGTAC TTTTGTTCCT ATGGGATTG	1380
CTCAGAAAGA TGGTTCTTAT GCAGGATTG ATATTGATTT AGCTACAGCT GTTTTGA	1440
AATACGGAAT CACGGTAAAT TGGCAACCGA TTGATTGGGA TTTGAAAGAA GCTGAATTGA	1500
CAAAGGAAC GATTGATCTG ATTTGGAATG GCTATTCCGC TACAGACGAA CGCCGTGAAA	1560
AGGTGGCTTT CAGTAACTCA TATATGAAGA ATGAGCAGGT ATTGGTTACG AAGAAATCAT	1620
CTGGTATCAC GACTGCAAAG GATATGACTG GAAAGACATT AGGAGCTCAA GCTGGTTCAT	1680
CTGGTTATGC GGACTTTGAA GCAAATCCAG AAATTTTGAA GAATATTGTC GCTAATAAGG	1740
AAGCGAATCA ATACCAACC TTTAATGAAG CTTGATTGA TTTGAAAAAC GATCGAATTG	1800
ATGGTCTATT GATTGACCGT GTCTATGCAA ACTATTATTT AGAAGCAGAA GGTGTTTTAA	1860
ACGATTATAA TGTCTTTACA GTTGGACTAG AAACAGAAGC TTTTGCGGTT GGAGCCCGTA	1920
AGGAAGATAC AAAC TTGGTT AAGAAGATAA ATGAAGCTTT TTCTAGTCTT TACAAGGACG	1980
GCAAGTTCCA AGAAATCAGC CAAAAATGGT TTGGAGAAGA TGTAGCAACC AAAGAAGTAA	2040
AAGAAGGACA GTAAGATAAA ATAGTGGCTG AAAGTGGCTT TTGATTAGCA AAACGTAGTT	2100
TTTTTTGTAA TCTAGGAAAA CGATAATAGC GATTGAATAT GGATAATTGA ATATGGAATA	2160
GCCCACTGTG ATTTCTAAAA CATTTGTTAA AATTGATTTG ACTTCAAAA TTAAAATGTT	2220
CTGTAATGAA ATACTGATGT AACTGTTTTA GGAACAATAA AACGCATAAT ATCAAGGTTT	2280
TTGCACCTTA CATTATGCGT TTTTGTGATT TTAAGACTTG TTAGCTGATT TTTTACAATC	2340
CTGCGAATC TTTGATTCTT TGTGCTGACA TTGAAGAGTC GCAACGGACG TTGATTGTGC	2400
CATCTGTAAT ATGAACAAAA CCTGGTACAG TTGGGATTCC ATAGCGTGAG CGGAATGCTT	2460
GCAAATCATT GAGTTGGCTT GGTCTTCAC TATTGATGAA GTAAATGTGA GCTTTGGTTT	2520
CAGCTACGAC ACCTGACAAT GTACCTGCAA ATTTACGGCA GTAAGGGCAA GTTTTGCGAC	2580

855

CGATAAAGAA GGTTCAGTT TCTTTTTTAT CAAGAGCTTC TTGCGCACGC ACAACTGTAG	2640
TGACTTCAAG GTCTTTGATG TTATCTAAAA ATTGTTCCAT GAGATTACCT CGCTTTCATT	2700
GATAAGTCTA GTATGCCATA AAGTTTCTAA AATTGCTTAG ATTTGATACG AAAAAAGATG	2760
AGGTGGTTG GTCTCATCTT TTATAGGTCT TTATTTTACA AATGCATTGA TTTCTGCTTC	2820
GATGTTAGCA ATCTTAGCTT GTGATTCTTC GTTGGTTTCC CCTACAACTG CAATGTAGAA	2880
CTTGATTTTT GGTTCGTAC CTGAAGGGCG AACGGCAATC CATGAACCGT CAGCAAGTG	2940
GTATTTCAAC ACATCACTTG GAGGAGTTGT CAAGTTTGTA ACAGTACCGT CAGCAACAGT	3000
AGCAGTTTGT GCCTTGAAGT CTTCTACGAC AGTGATAGCT GTTGC GTTCC ATTCTGTTGG	3060
AGCATTGTTG CGGAATTTAG CCATAATCGC TTTGATTTGT TCAGCACCAT CGACACCTGA	3120
AAGAGTAACA GAGATTGTTT TTTCTGCGTA GTAGCCATAT TCTTTATAGA TTTCTTCGAT	3180
ACCGTCAGCA AGTGTCAAAC CACGAGAAGC GTAGTAGGCA GCAAGTTCAG CAACTACAAG	3240
AACGGCTTGG ATGGCATCTT TATCACGTAC AAATGGTTTA ATCAAGTAAC CGAAGCTTTC	3300
TTCAAATCCC ATCATGTAAG TGTGGTTGTG TTTTCTTCG AATCTCTGGA TTTTTCAGC	3360
GATAAAATTTG AAACCTGTCA AGACGTTGAA CATAGTTGCG CCGTAGCTTT CAGCAATCTT	3420
CGTTACCAAG TCAGTTGAAA CGATAGATTT GCAGAGAGCG GCATTTTTCAG GAAGAGTTCC	3480
AGCGTTTTTG TGAGCTTCCA AGATGTATTT AGCCATGATA GCACCGATTT GGTACCTGA	3540
AAGGTTGAGG TAGCTACCAT CTTTTGTAAG AACTTCAACA CCAACACGGT CAGCGTCTGG	3600
GTCAAGTTGCG ACAAGAACAT CTGCACCAAC TTGACGACCA AGTCTTTCAG CAAGGGCAAA	3660
GGCTGCTTGG CTTTCTGGGT TTGGAGATGT TACAGTTGAA AAGTCTGGGT CAGCAGTTGC	3720
TTGCGCTTCA ACAACTTGAA CAGAGTCAAA TCCTGCTTGG GCAAGAGCAC GACGAGCCAA	3780
CATTTACCA GTACCATGAA GTGGTGTGTA GACAATCTTC ATGTCTTTAC CAAATCTTC	3840
AATCAAGGCT GGGTTGATGT TTATGTCCTT AACCTCTTA AGGTATTCTA TGTCAACAGC	3900
TTGCGCCGATA ACTTCAATCA AGCCAGAAGC TTTTTCAGTT TCCACATCAG CAACTTCAAC	3960
TGCAAATGGG TTTTCGATTG CACGGATATA AGTAGTCAAA GCGTCCGCAT CGTGTGGAGG	4020
CATTTGTCCA CCGTCTTCAC CGTAAACCTT GTAACCGTTA AATGGAGCAG GGTGTGGCT	4080
GGCTGTGACC ATGATACCTG CGAAACAGTT GAGATGACGA ACTGCAAATG ATAGTTCTGG	4140
AGTCGGACGA AGGCTTTCAA ATACGTAAGA TTTGATGCCG TGTTTAGCAA GAACTGCCGC	4200
AGATTCAAAG GCAAACCTCAG GTGAGAAGTG ACGGCTATCG TAGGCAATTG CTACACCGCG	4260
TTCTTTCTCG TTCCACCTT TTGACTCAAT CAAACGAGCC AATCCTTCAG TAGCTTGGCG	4320

856

AACAACGTAG ATGTTGATAC GGTTTGTACC AGCACCAACC AAGCCACGCA TACCTGCAGT	4380
ACCAAATTCA AGATTTGTAT AGAAGGCATC TTCCTTAGTT TTTTCGTCCA TATTTTCCAA	4440
ATCTTGACGA AGGTAGTCAC GAAGCTCCAC AAAATCAACC CATTTCTGGT AATTTTCTTG	4500
GTAAGACATT CAAATTCTCC TTTATTTTAA AAACATTAA TCAGTTTAAT TATATCATTT	4560
TTTTTAGTTT TAGTAAACC TTATCTGCTT CGAACATCTC TTCAAACCAG GTCAGATTGA	4620
ATTTTGGGGT TATATGATGT TGAGGCTAGG AAAAATTCAA TTTCAGTAAA AAAAGTAAAGT	4680
CTTCTCATAA CAAAACATTG ATATAGTTAC TTAGTTTAA ACAAGCATAT TATAATAAAG	4740
CTATGGCATA TAGTACTGAT TTTAAACAGC GAGCATTAGA TTACATCAA GAGGGGCACA	4800
GCCATGTCGA GGCAGCCAAG TTTTTTGGTG TTGGCGTCAG AACTCTCTTC ACGTGGGAAA	4860
AGAAAGACGT GAACAAGAAC ACATAGAGAG GAAAAAGCGA GTCGTCAAAA ACCGAAAGAT	4920
TCCTTTAGAG GAATTGAAAG CCTTTGTAGA GGCTCATCCA GATGCTTTT TACGGGAAAT	4980
TGCGGCACAT TTGATTGTG CTGTTCTTC AGTATGGCA GCTTTAAAGC AGATTAAAGT	5040
CACTTTAAAA AAAGATGACG AGCTTTAAGG AACAAGACCC AGAAAAGTAG CCTTATTTCT	5100
TAAGAATTTT AATAGTTTAA AGCACCTAGC ACCTGTTTAT ATTGATGAAA CAGGAATCGA	5160
CCGCTATCTC TATCGTCCTT ATGCAGGGGC TCCTAGAGGG GAGAAAGTCT ATGAAAAGAT	5220
TAGCGGACGT CGTTTGTAGC GAACTTCAAT TGTTCAGGA CAAGTAGACG GAGAGTTTAT	5280
AGCTCCCATG ATTTACAAGA AAAGCATGAC AAGCGATTTC TTTGTGGAGT GGTTCAAAAC	5340
GCAACTCCTA CCTGCTTTGA AGACACCTCA TGTATTGTC ATGGGCAATG CTGGTTTTC	5400
TCCCAAGAAC ATTTTGGATG AACTCTGCAT CCAAGATAAA CACTTTTTCT TACCTCTACC	5460
ACCTTATTCA CCGGATTGTA ATCCTATTGA GCAAGCTTGG GCTATCTTGA AAAAGAAAGT	5520
GACGGATGTA TTAAGGGAAG TTCCAATAT TTTTGAATGT TTGGAATGCT TTTTAAAAAC	5580
TAGATGACTA TAACGGTTCT AAAGGAACCT ATCGAGTAGT CATTAATACT AAGGATACTG	5640
CTGGTTAAGA GAAGACGGTA TACAATCAA CCATTCACCG TGAGCCGAA ATCGTTCAGA	5700
ATGAAGACTT GTATCAGAAT GAAGACTTGT ATAAGAAAGG TTTGAATGTT GAAGTTGCGC	5760
ACCAACAAAT TAAGGGATTT TTTGAAGCAG AGTTTAAAA TCGTATTAAT GGAGTTCTTA	5820
ATACTAAAAA AAAAAATAGT ACATTAAATC GTGTAAATAA AAAAACTATA CACCAGAGCA	5880
ACAAAACTC CATGATCAAT TTGAAGCAGA AGCAACGGAA GATGCTAAAA AACAAGGCGA	5940
TATTGTGTTG AATGTTGACC AGGATTTTCA GAGCATATCT AAGTCTAATA AAAGTGGTTC	6000
AGACTGGAAG AAAACTTTCA CAGTGAGGAT AACCAATAGG CTAGCAAATG ACTTGAATAA	6060
TGTCTTGAAA CAGGTTGATA AAGATACTCC TAATACCCCA ACTTGGCTAA ACTCAGCTGC	6120

857

TTCTAAAGCT AAAGATGATG ACAGAGTATA TAAACTACTG AAGACTCTTA TACCAGGAGA	6180
AAATTACCTA TCATGTTAAG GATAATCAGC TAGAAGTAGA AACAGATAAA TACACATATA	6240
CTGCCGCTAG AAATGGTAGT AAGGAAGTTG GTATTCAAGA GTCAGATATA GCAGCAACTC	6300
TAAGTGCCGA TGAATATAAT TCTAATCGCC AAACTTTGA GAGAGAATAC AAATACAAAA	6360
GCAAAATGCCC TTAATAATGG TTGGGCTAGA TCTGGTTCTG AAGAGTTCAA AAAGTTCTCC	6420
CACTTTGTAG GGGTAGACAA AGGGATTGTG CGAACGAATG TACTGACTGG TAAAAACTA	6480
TCTGATAAGA TTAGGAAAGA AGTGGGCTCT GGAGATAGCA AACTAGGAAA AGGCGGCTAT	6540
TTTCTACTG GGGATGTTCT ATTAGGAAA GATGTTGTTT CTTATACCGT ACAAGTATTT	6600
TCAGAGAATA ATGAAAGAGT AGGAGTAAAC ACTCAAAGTC ACCGTGTTCA GTATAATCTC	6660
CCAATTCTAG CTGACTTTTC AGTCATCCAA GATACTGTGG AACCATCAGC AACCGTTGTT	6720
GAAAAATCA TTCCAAACT AAATATCCC GAAGAAGAGA AAGGGAAAT AACCGAAGAA	6780
ATCAAGAAAA AGAAAAAAC CTCAGAATTG GCAGAACTAA TCTCAGAAAA TGTGAAAGTT	6840
CGTATGTTG ATGAACAAGG GCGTTTGCTA TCATTGAAA ATGATACTGG AATTGGAGAA	6900
AAAGAAAGTG ACGGAACCTA CATTACCAAT AAAAAACAAC TGATTGGTAC CAGCTATAAT	6960
GTCACAGATA AAAAATCTAG TAGCATGACT ACTACTGACG GAAAATATTA TACTTTTAAA	7020
GAAGCAGATA CAAATCTGC AAGTTTAACT GGAATATTG TAAGCGAAGG TAGAACAGTG	7080
ACCTTAGTTT ATAGAGAAAG CGAAGCGCCA ACCACTGCTA CAGTAACAGC CAATTACTAT	7140
AAAGAAGGTA GGCAAGAGAA GTTGGTAGAG TCTGTTATAA AAGCTGATTT AGCGATAGGT	7200
TCTGAGTATA CCACAGAATC AAAAATATT GAAGGGAAAA CAACAACCTGA GGACAAAGAA	7260
GACCGAGTTA TCACAAGGAA AACACATAC ACCTTGGTAG CAACTCCTGA AAATGCGTAC	7320
CAGAAGACGG TGCAACAGTT GACTATTACT ACCGTGAGAA TGTTGAGGAA ACAGTGGTTC	7380
CCAAAACAGC AACCTCTACT GAGACGAAGA CTATAACGCG TATCATTCAT TACGTTGATA	7440
AAGTTACGAA CCAAATGTA AAAGAAGATG TTGTTCAACC TGTAACCTTA AGCCGTACAA	7500
AAACTGAGAA CAAGGTCACG GGAGTTGTAA CCTACGGTGA ATGGACAACA GGAACTGGG	7560
ACGAGGTTAT ATCTGGTAAG ATTGACAAGT ACAAAGATCC AGATATTCCA ACAGTTGAAT	7620
CACAAGAAGT TACGTCAGAC TCTAGTGATA AAGAAATAAC GGTAAGGTAT GACCGTTTAT	7680
CAACACCAGA AAAACCAATC CCACAACCAA ATCCAGAGCA TCCAAGTGTT CCGACACCAA	7740
ACCCAGAACT ACCAAATCAA GAGACTCCAA CACCAGATAA ACCAACTCCA GAACCAGGTA	7800
CTCCAAAAAC TGAACTCCA GTGAATCCAG ACCCAGAAGT TCCGACTTAT GAGACAGGTA	7860

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AGAGAGAGGA ATTGCCAAAC ACAGGTACAG AAGCTAATGC TACCTTGGCT AGTGCTGGTA	7920
TCATGACCTT GTTAGCTGGT CTAGGATTAG GATTTTTCAG GAAAAAGAA GATGAAAAAT	7980
AATAGATTTT AGAATCTAGG AACCAGGAAA AGCTCACAGA TGTGGGCTTT TTTCTGGTT	8040
TTGAGAACGA GGTCTTTCGT AAAGAATAAA AACGCTTACA AGTCTGTTGA ACTGGGAAAC	8100
TATGAATCCT ATTTTAA AAATATTCC AGAAATCAGT TGCGG	8145

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8697 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

CGGTACCGGG AACGATACTT AGTCTAATTT TGCACCTTTT CCATGTATGG TAAAGGTTTT	60
TCTTTTTTTA AAAAGGAAAA CGAGAAGAGG AGGTTCTTAT GAAAGCAAGC ATTGCCTTGC	120
AAGTTTACC CCTAGTACAG GGGATTGATC GGATAGCTGT TATTGATCAG GTCATTGCTT	180
ATCTGCWAC TCAAGAAGTG ACGATGGTAG TGACACCATT TGAAACGGTC TTGGAAGGGG	240
AGTTTGATGA GCTTATGCGC ATTCTAAAAG AAGCGCTGGA AGTGGCAGGG CAGGAGGCAG	300
ACAATGTCTT TGCCAATGTC AAAATAAATG TAGGAGAGAT TTTAATCTTT GATGAGAAAC	360
TTGAGAAGTA TACTGAGACG ACACATTAGT CTATTGGGCT TTCTCGGAGT ATTGTCAATC	420
TGGCAGTTAG CAGGTTTTCT TAAACTTCTC CCCAAGTTTA TCCTGCCGAC ACCTCTTGAA	480
ATTCTCCAGC CCTTTGTTCG TGACAGAGAA TTTCTCTGGC ACCATAGCTG GGCGACCTTG	540
AGAGTGGCTT TACTGGGGCT GATTTTGGGA GTTTTGATTG CCTGTCTTAT GGCTGTGCTC	600
ATGGATAGTT TGACTTGGCT CAATGACCTG ATTTACCCTA TGATGGTGGT CATTGAGACC	660
ATTCCGACCA TTGCCATAGC TCCTATCCTG GTCTTGTGGC TAGGTTATGG GATTTTGCCC	720
AAGATTGTCT TGATTATCTT AACGACAACC TTCCCATCA TCGTTAGTAT TTTGGACGGT	780
TTTAGGCATT GCGACAAGGA TATGCTGACC TTGTTTAGTC TGATGCGGGC CAAGCCTTGG	840
CAAAATCCTGT GGCATTTTAA AATCCCAGTT AGCCTGCCTT ACTTTTATGC AGGTCTGAGG	900
GTCAGTGTCT CCTACGCCTT TATCACAAC GTGGTATCTG AGTGGTGGG AGGTTTGTAA	960
GGTCTGGTG TTTATATGAT TCAGTCTAAA AAAGTGTTC AGTATGATAC CATGTTTGCC	1020
ATTATTATTC TGGTGTGAT TATCAGTCTT TTGGGTATGA AGCTGGTCGA TATCAGTGAA	1080
AAATATGTGA TTAAATGGAA ACGTTCGTAG AATTAGAATG TTTCTGAAAA AGAAAAGAGG	1140

AAATCAAAT GAAGAAAACA TGGAAAGTGT TTTTAAACGCT TGTAACAGCT CTTGTAGCTG	1200
TTGTGCTTGT GGCCTGTGGT CAAGGAACGT CTTCTAAAGA CAACAAAGAG GCAGAACTTA	1260
AGAAGTTGA CTTTATCCTA GACTGGACAC CAAATACCAA CCACACAGGG CTTTATGTTG	1320
CCAAGGAAAA AGGTTATTTT AAAGAAGCTG GAGTGGATGT TGATTGAAA TTGCCACCAG	1380
AAGAAAGTTC TTCTGACTTG GTTATCAACG GAAAGGCACC ATTTGCAGTG TATTTCCAAG	1440
ACTACATGGC TAAGAAATTG GAAAAAGGAG CAGGAATCAC TGCCGTGCA GCTATTGTTG	1500
AACACAATAC ATCAGGAATC ATCTCTCGTA AATCTGATAA TGTAAGCAGT CCAAAAGACT	1560
TGGTTGGTAA GAAATATGGG ACATGGAATG ACCCAACTGA ACTTGCTATG TTGAAAACCT	1620
TGGTAGAATC TCAAGGTGGA GACTTTGAGA AGGTTGAAAA AGTACCAAAT AACGACTCAA	1680
ACTCAATCAC ACCGATTGCC AATGGCGTCT TTGATACTGC TTGGATTAC TACGGTTGGG	1740
ATGGTATCCT TGCTAAATCT CAAGGTGTAG ATGCTAACTT CATGTACTTG AAAGACTATG	1800
TCAAGGAGTT TGACTACTAT TCACCAGTTA TCATCGCAAA CAACGACTAT CTGAAAGATA	1860
ACAAAGAAGA AGCTCGCAAA GTCATCCAAG CCATCAAAAA AGGCTACCAA TATGCCATGG	1920
AACATCCAGA AGAAGCTGCA GATATTCTCA TCAAGAATGC ACCTGAACTC AAGGAAAAAC	1980
GTGACTTTGT CATCGAATCT CAAAAATACT TGTCAAAAGA ATACGCAAGC GACAAGGAAA	2040
AATGGGGTCA ATTTGACGCA GCTCGCTGGA ATGCTTTCTA CAAATGGGAT AAAGAAAATG	2100
GTATCCTTAA AGAAGACTTG ACAGACAAAG GCTTCACCAA CGAATTTGTG AAATAATGAC	2160
AGAAATTAGA CTAGAGCAGC TCAGTTATGC CTATGGTCAG GAGAGGATTT TAGAGGATAT	2220
CAACCTACAG GTGACTTCAG GCGAAGTGGT TTCCATCCTA GGCCCAAGTG GTGTTGGAAA	2280
GACCACCCTC TTTAATCTAA TCGCTGGGAT TTTAGAAGTT CAGTCAGGGA GAATTGTCCT	2340
TGATGGTGAA GAAAATCCCA AGGGGCGCGT GAGTTATATG TTGCAAAAGG ATCTGCTCTT	2400
GGAGCACAAG ACGGTGCTTG GAAATATCAT TCTGCCCTC TTGATTCAAA AGGTGGATAA	2460
GGCAGAAGCT ATTTCCCGAG CGGATAAAAT TCTTGCGACC TTCCAGCTGA CAGCTGTAAG	2520
AGACAAGTAT CCTCATGAAC TTAGCGGTGG GATGCGCCAG CGTGTAGCCT TACTCCGGAC	2580
CTACCTTTTT GGGCACAAGC TCTTTCTCTT AGATGAGGCC TTTAGCGCCT TGGATGAGAT	2640
GACAAAGATG GAACTCCACG CTTGGTATCT TGAGATTAC AAGCAGTTGC AGCTAACAAC	2700
CCTGATCATC ACGCATAGTA TTGAGGAGGC CCTCAATCTC AGCGACCGTA TCTATATCTT	2760
GAAAAATCGC CCTGGGCAGA TTGTTTCTAGA AATTAACTA GATTGGTCTG AAGATGAGGA	2820
CAAGGAAGTC CAAAAGATTG CCTACAAACG TCAAATTTTG GCGGAATTAG GCTTAGATAA	2880

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GTAGAAAAAT AGGGAGTTGG TGAAGATTAT CCTTTACCAG CGCCCTTTT CTTTAAAAA	2940
TGAGAAAATT TCGGTATAAT AGTCAAACAA GGTCAGGTT TAAAGAGAGA GGTGGGTTTG	3000
TTATGAGATT TAAAAATACA TCGGATCATA TTGAGGCCTA CATCAAGGCG ATTTTAGATC	3060
AATCTGGTAT CGTGGAGTTG CAACGGAGTC AGTTGGCAGA TACCTTTCAG GTTGTTCCTA	3120
GTCAGATTAA CTACGTGATC AAGACACGCT TTACGGAAAG TAGAGGCTAC TTGGTTGAAA	3180
GTAAGCGTGG TGGCGGAGGC TACATTGTA TAGGACGGAT TGAGTTTCT AGTCATCATG	3240
AAATGCTCCG GGAGCTGCTT TACTCGATTG GTGAGCGAGT CAGTCAAGAA ATTTATGAGG	3300
ATATTCTCCA GCTTTTGGTT GAGCAGGAAT TGATGACCAA CGAGGAGATG AATTGCTAG	3360
AATCAGTAGC TTTGGATCGC GTTTTAGGAG AAGAAGCTCC AGTTGTTTCA GCAAACATGC	3420
TACGTCAGAT CATAAAGAG GTAGATAGAA AAGGGAAGTA AGATGAAC TA TCAAAAGCA	3480
TTGAATGAAT GTATCGAAAG TGCCTACATG GTTGCTGGAC ATTTTGAGC TCGTTATCTA	3540
GAGTCGTGGC ACTTGTGAT TGCCATGTCT AATCACAGTT ATAGTGTAGC AGGGGCAACT	3600
TTAAATGATT ATCCGTATGA GATGGACCGT TTAGAAGAGG TGGCTTTGA ACTGACTGAA	3660
ACGGACTATA GCCAGSATGA AACCTTTACG GAATTGCCGT TCTCCCGTCG TTTGCAGGTT	3720
CTTTTGTATG AAGCAGAGTA TGTAGCGTCA GTGGTCCATG CTAAGGTACT AGGGACAGAG	3780
CACGTCCTCT ATGCGATT TT GCATGATAGC AATGCCTTGG CGACTCGTAT CTTGGAGAGG	3840
GCTGGTTTTT CTTATGAAGA CAAGAAAGAT CAGGTCAACA TTGCTGCTCT TCGTCGAAAT	3900
TTAGAAGAAC GGGCAGGCTG GACTCGTGAA GATCTCAAG CTTTACGCCA ACGCCATCGT	3960
ACAGTAGCTG ACAAGCAAAA TTCTATGGCC AATATGATGG GCATGCCGCA GACTCCTAGT	4020
GGTGGTCTCG AGGATTATAC GCATGATTG ACAGAGCAAG CGCGTTCTGG CAAGTTAGAA	4080
CCAGTCATCG GTCGGGACAA GGAAATCTCA CGTATGATTC AAATCTTGAG CCGGAAGACT	4140
AAGAACAACC CTGTCTTGGT TGGGGATGCT GGTGTCGGGA AAACAGCTCT GCGCTTGGT	4200
CTTGCCAGC GTATTGCTAG TGGTGACGTG CCTGCCGAAA TGGCTAAGAT GCGCGTGTTA	4260
GAACCTTGATT TGATGAATGT CGTTGCAGGG ACACGCTTCC GTGGTGACTT TGAAGAACGC	4320
ATGAATAATA TCATCAAGGA TATTGAAGAA GATGGCCAAG TCATCCTCTT TATCGATGAA	4380
CTCCACACCA TCATGGGTTC TGGTAGCGGG ATTGATTCTGA CTCTGGATGC GGCCAATATC	4440
TTGAAACCAG CCTTGGCGCG TGGAACTTTG AGAACGGTTG GTGCCACTAC TCAGGAAGAA	4500
TATCAAAAA ATATCGAAAA AGATGCGGCA CTTTCTCGTC GTTTCGCTAA AGTGACGATT	4560
GAAGAACCA GTGTGGCAGA TAGTATGACT ATTTTACAAG GTTTGAAGGC GACTTATGAG	4620
AAACATCACC GTGTACAAAT CACAGATGAA GCGGTTGAAA CAGCGGTAA GATGGCTCAT	4680

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CGTTATTTAA CCAGTCGTCA CTTGCCAGAC TCTGCTATCG ATCTCTTGA TGAGGCGGCA	4740
GCAACAGTGC AAAATAAGGC AAAGCATGTA AAAGCAGACG ATTCAGATTT GAGTCCAGCT	4800
GACAAGGCCC TGATGGATGG CAAGTGGAAA CAGGCAGCCC AGCTAATCGC AAAAGAAGAG	4860
GAAGTACCTG TCTACAAAGA CTTGGTGACA GAGTCTGATA TTTTGACCAC CTTGAGTCGC	4920
TTGTGAGGAA TCCCAGTTCA AAAACTGACT CAAACGGATG CTAAGAAGTA TTTAAATCTT	4980
GAAGCAGAAC TCCATAAACG GGTATCGGT CAAGATCAAG CTGTTTCAAG CATTAGCCGT	5040
GCCATTGCCC GCAACCAGTC AGGGATTGCG AGTCATAAGC GTCCGATTGG TTCCTTTATG	5100
TTCTAGGGC CTACAGGTGT CGGAAAACT GAATTAGCCA AGGCTCTGGC AGAAGTTCTT	5160
TTTGACGACG AATCAGCCCT TATCCGCTT GATATGAGTG AGTATATGGA GAAATTTGCA	5220
GCTAGTCGTC TCAACGGAGC TCCTCCAGGC TATGTAGGAT ATGAAGAAGG TGGGGAGTTG	5280
ACAGAGAAGG TTCGCAATAA ACCCTATTCC GTTCTCCTCT TTGATGAGGT AGAGAAGGCC	5340
CACCCAGATA TCTTTAATGT TCTCTTGACG GTTCTGGATG ACGGTGTCTT GACAGATAGC	5400
AAGGGACGCA AGGTCGATTT TTCAAATACC ATTATCATTA TGACATCGAA TCTAGGTGCG	5460
ACTGCCCTTC GTGATGATAA GACTGTTGGT TTTGGGGCTA AGGATATTCG TTTTGACCAG	5520
GAAAATATGG AAAAACGCAT GTTTGAAGAA CTGAAAAAG CTTATAGACC GGAATTCATC	5580
AACCGTATTG ATGAGAAGGT GGTCTTCCAT AGCCTATCTA GTGATCATAT GCAGGAAGTG	5640
GTGAAGATTA TGGTCAAGCC TTTAGTGGA AGTTTGACTG AAAAAGGCAT TGACTTGAAA	5700
TTACAAGCTT CAGCTCTGAA ATTGTTAGCA AATCAAGGAT ATGACCCAGA GATGGGAGCT	5760
CGCCCACTTC GCAGAACCCT GCAAACAGAA GTGGAGGACA AGTTGGCAGA ACTTCTTCTC	5820
AAGGGAGATT TAGTGGCAGG CAGCACACTT AAGATTGGTG TCAAAGCAGG CCAGTTAAAA	5880
TTTGATATTG CATAAAAGAA TAAAAGTATC AGCATCTGAC CATAAGTCAC AGTGGAGTGA	5940
AATTCAATGA AAATCAAAGA GCAAACCTAGG CAGCTAGCCG CAGGTTGCTC AAAACACTGG	6000
TTTGAGGTTG CAGATAGAGC TGACGTGGTT TGAAGAGATT TTCGAAGAGT ATGAAACTAA	6060
AACCTATAGC TTCTAAACGA TCCGTGGTTT TCATCATTCA ACACAAAATT CATATGTTTA	6120
TTACCCCTCCG TCGTATTGT CTTAGAGCGT GTGTAGTAGA AAAAGAGCAG TCTTATCTGA	6180
AATTTTATT CTTTCAAAG AGACCTGTTT CTTTTTGCA TGTCAAATCC GTTCTAGCTG	6240
GTATTTGAAA AATCAAACCTA ATATTCAATG AAAATCAAAG AACAACTAG GAAGCTAGCC	6300
GCAGGTTGCT CAAAACACTG TTTGAGGTT GTAGATAGAG CTGACGTGGT TTGAAGAGAT	6360
TTTCGAAGAG TATAAGCTGC AAGATGAATG ATTTTCTTGT ATTGACGTTG TTGTTGACAA	6420

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AAAGTAGCGG ATAAATGAAA TCCATTCCAT TATCATAGAT GATAGGCTGG TAGGAAATTT	6480
TCAAATAGCA TACAGGAAAT AGATGTATGG ACTTCTGGTA GTAGAAAGGG AGAGAGATGA	6540
ACATTTTAGT TGCAGATGAC GAGGAAATGA TTAGAGAAGG AATTGCAGCA TTTCTGACAG	6600
AAGAGGGTTA TCATGTCATT ATGGCTAAGG ATGGACAAGA GGTCTTGGA AAATTTCAAG	6660
ATCTCCCTAT CCATCTCATG GTACTGGATT TAATGATGCC TAGGAAGAGT GGTTTTGAAG	6720
TGTTAAAAGA AATCAATCAA AAGCACGATA TTCCTGTCAT CGTCTTGAGT GCTCTGGGAG	6780
ATGAAACTAC TCAGTCACAG GTATTGATC TCTATGCTGA TGATCATGTG ACAAACCTT	6840
TTTCTTTGGT ACTGCTTGTG AAGCGTATTA AGGCGCTTAT CAGACGTTAC TACGTCATAG	6900
AGGATCTTTG GCGATATCAG GATGTAACAG TGGATTTTAC CTCTTACAAA GCACATTATA	6960
AAAATGAAGA AATTGATCTC AAACCAAAGG AATTACTGGT ACTAAAGTGT TTGATTGAGC	7020
ATAAAAATCA AGTTTAAAGT AGAGAGCAGA TATTGGAAGA AATTTCAAAA GATGTAGCTG	7080
ATTTACCTTG TGATAGGGTC GTTGATGTCT ATATTCGTAC TCTTCGCAA AAATTAGCTT	7140
TAGATTGTAT CGTGACTGTG AAAAATGTTG GGTATAAGAT TAGCTTATGA TAAAAATCC	7200
TAAATTATTA ACCAAGTCTT TTTTAAGAAG TTTTGCAATT CTAGGTGGTG TTGGTCTAGT	7260
CATTCATATA GCTATTTATT TGACCTTTCC TTTTATTAT ATTCAACTGG AGGGGAAAA	7320
GTTTAATGAG AGCGCAAGAG TGTTTACGGA GTATTTAAAG ACTAAGACAT CTGATGAAAT	7380
TCCAAGCTTA CTCCAGTCTT ATTCAAAGTC CTGACCATA TCTGCTCACC TTAALAGAGA	7440
TATTGTAGAT AAGCGGCTCC CTCTTGTCGA TGACTTGGAT ATTAAGATG GAAAGCTATC	7500
AAATTATATC GTGATGTTAG ATATGTCTGT TAGTACAGCA GATGGTAAAC AGGTAACCGT	7560
GCAATTTGTT CACGGGGTGG ATGTCTACAA AGAAGCAAAG AATATTTTGC TTTTGTATCT	7620
CCCATATACA TTTTGGTTA CAATTGCTTT TTCCTTTGTT TTTTCTTATT TTTATACTAA	7680
ACGCTTGCTC AATCCTCTTT TTTACATTTT AGAAGTGACT AGTAAATGC AAGATTTGGA	7740
TGACAAATTT CGTTTTGATG AAAGTAGGAA AGATGAAGTT GGTGAAGTTG GAAACAGAT	7800
TAATGGTATG TATGAGCACT TGTGAAGGT TATTTATGAG TTGGAAAGTC GTAATGAGCA	7860
AATTGTAAAA TTGCAAAATC AAAAGGTTTC CTTGTCCCGG GGAGCATCAC ATGAGTTGAA	7920
AACCCCTTTA GCCAGTCTTA GAATTATCCT AGAGAATATG CAGCATAATA TTGGAGATTA	7980
CAAAGATCAT CAAAATATA TTGCAAAGAG TATAAATAAG ATTGACCAGA TGAGCCACTT	8040
ATTAGAAGAA GTACTGGAGT CTTCTAAATT CCAAGAGTGG ACAGAGTGC GTGAGACCTT	8100
GACTGTTAAG CCAGTTTATG TAGATATTTT ATCACGTTAT CAAGAATTAG CTCATTCAAT	8160
AGGTGTTACA ATTGAAATC AATTGACAGA TGCTACCAGG GTCGTCATGA GTCTTAGGGC	8220

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ATTGGATAAG GTTTGTACAA ACCTGATTAG TAATGCAATT AAATATTCAG ATAAAAATGG	8280
GCGTGTAATC ATATCCGAGC AAGATGGCTA TCTCTCTATC AAAAATACAT GTGCGCCTCT	8340
AAGTGACCAA GAACTAGAAC ATTTATTTGA TATATTCTAT CATTCCTCAA TCGTGACAGA	8400
TAAGGATGAA AGTTCGGTT TGGGTCTTTA CATTGTGAAT AATATTTTAG AAAGCTATCA	8460
AATGGATTAT AGTTTCTCC CTTATGAACA CGGTATGGAA TTAAAGATTA GCTTGTAGAC	8520
AGATTAGTTT TTTATTAAAG TTCATATAGG GTTAACATAA GTGTGTTATT CTTTGTGTAG	8580
ATAAAAGAAA GGATACTAAT ATGGTATTAG CGATTATTTT AGTAACATTC TTTATTCGAT	8640
TGATTTTTTT AAAGCGTTCG ATAGAGAATG AGAAACGAAT CCTTAGCAAT GCGCGGG	8697

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4317 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

AACCATACAT ACGGCAAGGC AAAGCTGACG CGGTTTGAAG AGATTTTCGA AGAGTATTAG	60
TGCGCTTTAA AGGCATCCAC CATCGTTTGA AATTCTTCAT TTGAGAGAGT AATCCCTTTG	120
CCCATTTTAG TATGGTCTGG ACTCCAAGCA CGAATATCAA ACTTTGCAGG GGCACCATTA	180
AAGCTCACAC GGTAAATTC CTTGGTCCAA CCTTTTTCGT TTTCAGAAAG AGTCAACAAG	240
TGCTCTTCGA TTTCAATGT AAATCTGCC ATTTCTTCT CCTTTTTAG TTTCAATTAGT	300
TTATTCGTAA AATCTGTAG ATTTTAGGAA AATTTTATAT AATATTGATA TAAAGAAGG	360
GAGGCAATA TGAGACATAA ATTCAGCAA GTTCTAAATA AAATACATGA TTTTTTAAAT	420
GGATATGACC AACCTGACCA GACTGAAACC AACTCCCTTA CAGCCACTAT TGAAGAGGCT	480
ATCCAGAAAC AAACCGCTGT TCACCTTATC TTGTCTGAGA CAAGCTTTAC AGGTGACATC	540
ATCAAATATG ATCAGCAAGG CCAGCAAATT ATCGTGAAAA ATTTTCCAA AAATGTGAGC	600
CGGATTATCC GTATAAGCGA TATTCAACGC CTGCGATTG TCCCTCAAC TGTCCAAACA	660
GCCCCAAAAA ATAGATTTAA GAAAGAGTGA GATGTAGTTG CTTTCATCCCA CTCTTTTTC	720
TTAGCGAATT TGTCAAAAT GTAAATGAAC TGCGATATGA TCTCCATAAC CACTTCTTTC	780
CAAGTCACGT TGTAACGAT AGGAAATGTA GTGTTCTGCA ATGGTAATGT AACCTGCGCC	840
CAATAAACGA TGTCAACCA TAGATTGAAT CATACTGATA GTCGCACGTT CCACCTTGGC	900

864

TTCTTGTA	TCCTTCTAGT	GACTTGAGCA	AGATTTTGAC	GCAAATCATC	960
TGTCAAAACA	TAAACAGTTT	GGGCTGCCTT	CAAGATGGCT	TGGTAAATCT	1020
AAATTCAGCA	ATTTGCCCAT	TACGTTTGAT	TACTTGACATA	GGTTTCTCCT	1080
TTTTCTTTGA	TTTCTGCCAG	CATTTTTTCT	TCTTCTACTG	TCAGTTGATA	1140
AAATCCGGTC	TGCGCTCGTA	GGTTTTCTTT	AAACTCTCGT	ACAATCGCCA	1200
TTTTCATGGT	GGCCACTCAT	CAATACATCT	GGCAGGACCA	TGCCTCGATA	1260
CGTGTGTACT	GAGGATATTC	TAAAAGACCT	GAAGAAAAAC	TATCATCTTG	1320
TCCTTGCCAA	TCACTTCTGG	AATCAGGCGA	ACTGTAGCAT	CAATCATGGT	1380
AATTCCTCCAC	CAGTGAGGAC	ATAGTCACCT	AGGGAAATCT	CATCTGTAC	1440
ATGCGCTCAT	CATAACCCTC	ATAGTGCCCA	CAGATAAAGA	TTAGCTCTTC	1500
AAATCTTCAG	CATAAGCCTG	ATCAAACTGC	TTCCAGCAG	GATCAAGGAG	1560
GGATTTTCTT	TTTCAATAGC	ATCAAAGGAA	TCGAAAATAG	GTTGTGCTCT	1620
CCCTGACCGC	CTCCGTAGGG	CTCATCATCT	ACATGACGGG	CCTTTTCAGC	1680
AAATTATGAT	ACTGGATATC	CAAGAGCCCT	TTTCTCTGAG	CCTTTCCAAC	1740
TCCAGTGGAG	AAAACATCTC	TGGAAGAGG	GTAAAATAT	CAATCTTCAT	1800
TTCTAAGATT	TCCACATCGA	CCCGTTTACT	TGGAATATCA	ACATTGAGAA	1860
GATATAAGGT	AAAAGCAAAT	CACGTTTGCC	TTTTCGTTTG	ACCACCCACA	1920
ACCTGGTTGC	AGGATTTCCT	TGATGGTTCC	AACCAAGCTA	TCACCCTCAT	1980
ACCGATAATC	TCGTGATAGT	AAAATTCACC	ATCGTCTAGG	TCATTCAAAT	2040
GACCTTGAGA	CTGTATCCCT	TGTACTTTTC	GATAGTATTG	ATATGGTACA	2100
TTTAATAATG	TCAAAGTTCT	TCTGTTTACG	GTGGCTAGCG	ATGGTCACTG	2160
CTGATCTTTT	TCATCAAACA	AAACCAGCTC	AGCTCCTTTT	TTAAACCGTT	2220
ATCCGTCACA	GACAAGACTC	GCATCTCCCC	CTGTAATCCC	TGCGTATTAA	2280
AACATTAAAG	TAGTTCATCT	TGTCTCCTGT	AATCTCCTTT	TTCCATCTT	2340
TTCTCGAATA	ATAGCCGCAA	TTTTTTCCGA	TTCTGACCAT	TGTAATAAT	2400
TCCTAAAATG	AGTTTAGTAT	TGGAAGTCCA	ATATTCTGAT	TCTCTGTACT	2460
ATAAGGCTGA	CAAAAACAA	ATACAGGAAT	ATGAGCTTCT	ATAGATACAT	2520
TTCTTCAGTA	ATCTCTCCAG	ATATCTGAAA	TTCTGGATCT	TGATTTTCCA	2580
TTTTTCTTGC	ATTAATTCCC	AGATTTTTTT	ATTCGTTTCA	GGACTAAATG	2640
TAAGTTCTTA	AAATAAAGTT	CAGGACCACA	CTCGTCAATC	AGCCTCATCT	2700

865

TTCTGGATAA GGATTTTCTG AAAAATCAGC AAACATGACT TTTTGTAGTTG TCGGTTCAAT	2760
TGCTACTAAA GTCTGACGCT TAATTGGTTT CTCGAGTAAT TTGCAAGCTA AAATCCACT	2820
CCAACTATGT GCACAAAGTA TATATTCAGA AATTCCTAAT TCTTCAAGTA CTTCATAAAC	2880
CGCATCTGCA AGATTATCTA GATTTTTC AGCTTGGTCA TGAATCGGAC TCCTACCTGT	2940
GTTCGGAAAA TCAATTGTCA AATAACCAAT TGTAGGAGGA GGTTTTTCAA GTATAAGTGA	3000
AAAATTTTCA TAACTGGTA GCAACCTGC TCCGTTTAAA CAACTAGCA CTTCTTTTG	3060
CTTTTGATAA GTACAGAGA GGCTACCAAT TTCTGTAGAT ACTTCAAACC TCTCATAAA	3120
GAAATCCACT GATTCTATAT AATGAATTAT TAAAAATCCT TATCCTTTAT TTTATCACGT	3180
TCCAAGGATT TTCTCAAGTT GGAGGAAGGG GACAATATCT CTACTTTCCC TTCAATAATC	3240
CTTCCAAATT ATGTTTATGT TGGTAATTAA TGGCTGCGGT TTTGTCTTTC TCAAAGACAG	3300
TCTTGGAAG GTCAATATGA TTAATAGCTA CGATTGCGAC GGTGTAGTAA ATGATATCAG	3360
CCAGTTCTCT GGCAAGTTCC TCGTTCGAAT CCTATCCCTT CTTTTCGACC AGAGCGCCTA	3420
TTCAAAACCT CGACTACTTC TCCGACTTCC TCCACTAACT TCATAAAGAG ACCTTCATCA	3480
GTCCGAGACT GCTGTTAATG TTCGATTAAG TAGTCTTGA ATTGCCTAAA CGTTCAATCT	3540
TTTATAGTAT ATTGAACTA GAATAGTACA CCTTACTTC TAAAACATTG TTAGAAATCG	3600
ATTTGACTGT CCTGATCGAT TTGTCTGTT CTGTTTCAT TTTACTATAT CTTCTATTCC	3660
ACACAAAAA GCGAGACATC CGTCCGCCCT TTCTTATTT TCGTCAATAA CGATTCTTAC	3720
TTTTTTGTAT TCAGTTGGGA CAGAGTAGAC AATCGTTCTT ATCGCAGAAA TAGTGCAGAC	3780
CTTACGACCG ATTACACGAC CCACATCGCT TTGATCAAGA TTCAAATGAT ATTCCAAAA	3840
TTCTGGTGTA TCCTCAATCT TGATAGTTAA GGCATCTGGT TGTGAAATTA AGGGTTTCAC	3900
AATCGCAATA ATGAGATTTT CAATCGTATC CATCTGTCAA CCTACTTTAA ACTTATTTTG	3960
AAAATTTAGA ATCGTGAAT TTTTCAATA CGCCTTCTT TGAAAGGATG TTACGTACTG	4020
TGTCTGAAGG TTGAGCTCCA TTAGCCAACC ATGCAAGAAC GCGGTCTTCT TTCAAAGTTA	4080
CTTGTTTTTC AGCAACAAGT GGGTTGTAAG TTCCAACTGT TTCGATGAAA CGTCCGTCAC	4140
GTGGTGAACG TGAATCTGCT ACGTTGATAC GGTAGAAAGG TTTTCTCTTA GAACCCATAC	4200
GAGTCAAACG GATTTTAACT GCCATTTTAA AAGTCTCATT TCTTTAATTT TTTATTTTCG	4260
TGAAATAGCT GAGCTATTTA GCACATGTTT TATTATAGCA GATTCTGGC ATGTGTC	4317

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4881 base pairs

866

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

AATTTATTTG ACTGGAAATT GTAGAGGGTT CTCGAAATTT CTTGAATGGT TAAAAAAGG	60
ACAAGAGAAA ACATGGATAT CTATATCCTT GTGCCAAAAA AACCCTGCC CTCCCAGAC	120
CAACCTGAGG AAAGCAGTGA TTCTTATTTT AGGAGTTAGG AATGAATACA CGAAATCAAT	180
TTAGCTGATT ATTTTTTGTT TTTCAAGAAT TCATCGTATT GTTTTTGCAT TTCGTTCAAT	240
ACTTTTTTCGT AGGCACCTTC AGATTTCAAT TTTTCCATCA ATTCTGGAAT CGCTTTATCT	300
GGGTCTACAG TACCAGTGTT GATAGCTGTA TCAAATTGTT GCATTGTGTT AGCAATAGCT	360
GAGATTTTCAAG ATTTTACATT GTCAGTATTG AAGATAAATC CAAGCGCTGG AGATTCTTTA	420
GCTTCTGCCA ATTCCTTCTT AGAATTTTCG ATTTGTTGGT CTGTAACGTT TTCGTTGATG	480
TAAAGGATCC AGTTGTTACC AGTGTTCAT CCACCCATGT GAGTGTTCCT TTTGTAGCCA	540
TCAAGAACGC GAACACGGTT TTCTTTACCT TCAATTTTTT CCCAGTTCCT GCCTTCTGGA	600
CCGTAAACAA GACCGTTCAA GAGTCTGGG TTCGTATTCA AGAGGTTCAA GATTTCATT	660
GATTTTTCTT TGTCTTAGA GTTGTGTTGAG ATGACAAAGT TAGCAACTTG TGTGTTTGG	720
TTTTTCTTGA TGAAGTTAGT AATTGGTTG ATTTGATAT CTTTGTGGC AACACGTGAA	780
AGCAAGCTGT TACCGTAGTC AGCTGGTCCT ACTGTTTCTT CACGAACGAA CCAAGTATCT	840
TGTTGAAGGT CAAAGGAAGT ATCGCTTGT GCGACGCTT TTGGAATGTA GCCAGCTTCA	900
TAGAATTGT GAAGAGTCTT CAAGTGTCTT TTGAAACGAG GCACTTCGTA ACGGTTTACA	960
ACTTTAGTAG TATCGCCTTC AAGGTCGATA ACGAATGGAA GACCGTTTGC TACTGGGTAG	1020
TCAAAATAT CAGATGGGAT GAAAACCTTA CCAATAGCAA ATGGTACTAC GTCTGGAGCT	1080
TTTTCTTTGA TTTGTTTCAA GACTGGCTCA AGAGTTTCGT AAGAAGTAAC ACCTGAAATA	1140
TCGATACCAT ATTTAGCAAG GAGAGTCCG TTGAAGCAA AGTTTGTAGA TGATGCAACG	1200
TTGGCTGCAA CTGGAACAGC GTAAATCTTA CCATTACAG TATTACCTT GATGTAAGCT	1260
GGGTCAAGTG CTTTGTAAG GTCTTTACCT TCTTTTTTGT ACAATCTGT CAAGTCAGCG	1320
TAAGCACCTT TTTGAGCATT TACAATATAG TTATCTGCAA AGGCAATATC ATAGTTTCA	1380
CCAGATGATG TGATAACTGA CATTTTCTTA CCATAGTCAC CCCAGCCAAG GTATTGGATA	1440
TCCAATTTGG CACCAACTTT TTCTTCAATG ATTTTGTGG CATTTGCTAA CAATTCATCC	1500
AAGTTGCTCTG GTTTGTCACC GATTTGGTAC ATTTTGATAA CAGGTTTGT ACCTGAATCA	1560

867

GCAGCTTTTT TGCTGTTACC TGTCAAATTT CCACAAGCAG CAAGACCTGC AGCCAGAGCG	1620
ACTACACTAG CAGATGCAAA AGCATATTTT TTCCAGTTTT TCATGATAAA AACTCCTTTT	1680
TTTATTTTAA AACTTATAAA CAATGTAATG ATCTTATACT CAATAAAAAAT CAAAGAGCAA	1740
ACTAGAAAAAC TAGCCGCAGG CTGCTCAAAG CACTGCTTTG AGGTTGTAGA TAAGACTGAC	1800
GAAGTCAGTT ACATATATCT ACGGCAAGGC GACGTTGACG CGGTTTGAAT TTGATTTTCG	1860
AAGAGTATTA ACTTCACACA AGGGAAGTTG GGAAGTGA AATGTTATTT CTCAATAAGC	1920
ACTATTCTTT CACACCACCG ATAGTCAAAC CTTTTACAAA GTAGCGTTGG AAAAATGGAT	1980
ACAAAATCGC GATTGGAAGG GTTGCAACCA CAACCATGGC CATACGACCT GTTCTTTTCG	2040
GTAGAGCAAC TCCCAGTTGA CCAATCAAGC CGACCGCTTT GGCAATGTAG TCCATATTTT	2100
GTTGGATTG CATGAGCAAA TATTGCAATG GATACAAGTT GTCACTCTTG ATGTAAGAA	2160
GGGCGTTGAA CCAGTCATT CAGAAACCA GAGCTGTTAA GAGCGTGATG GTTGCGATAC	2220
CTGGTAGTGA CAATGGCAAA CAGATTGGA AGAAAATCCG GGCCTCACTG GCACCATCGA	2280
TACGAGCCGA TTCTAGAATG GCTTCTGGAA TGGTCTTCTT GAAGAAGGAA CGCATCAAGA	2340
TGATGTTAAA TGGTGAGAGA AGCATTGGAA CAATCAAGGC CCAAACAGTG TCACCAAGCT	2400
GAAGTACACG GGTCAACATG ATATAACCTG GTACCAAACC AGCGTTGAAC AACATACTGA	2460
GAAGGACGAA GATGGTAAAG AATCTGCGAT ACTTAAAGGT TGTCCGTGAA ATAGCGTAGG	2520
CATAGGTTGT TGTGATAAAG ACATTGTGCA ATGTCCCAAC TACGGTTACA AAGACAGAGA	2580
TGAAGAGGGC TTGTAGGATT TTATCCTTAA ACTGTGCCAA AAACTCAAAA CCGTCTAAGC	2640
CAAATTGGGA TGGGAAGAAG CTATAGCCGT ATTGGAGGAG GCTTTTCTCG TCTGTCACTG	2700
AAATAATGAT AACGAATACA AAAGGTAGGA TACAAGAGAG GGCAATCAAA CCCGAAATGA	2760
TACTGAAGAA GATATCTGCT TTCTTACTGA AGGAGTGAAT GCCGACATTA TCAATTTTTT	2820
CTTTTTAAT TTTCTTTTTT GCCATATTCT CTCCTTTCT AGAACAAAGC TGAGTTTGGA	2880
TCGACTCGTC TTGCAAGCAA GTTTGATAGG ATAACCAGAA TCAAACCAAC AACGGATTGG	2940
TAAAGACCGG CTGCTGCAGC CATACCGATA TCTGCTGTCT GAGTCAAACC ATTAAGACA	3000
TATACGTCCA AACGTTGGT TACATTGTAA AGCTGACCAG CATGTGTGTT GATTGATAG	3060
AAGAGACCGA AGTCTGCGG GAAGATATTT CCGACTGCAA GGATGGTCAA TACAGTTACA	3120
AGCGGAGTCA ACTGAGGAAT GGTACGTTG CGAATACGTT GCCACTTGCT AGCTCCGTCC	3180
ACTGTCGCTG CTTTCGTAGTA GGTGGATCA ATTCCCATGA TCGTCGCATA GTACATGACA	3240
CTGCTATATC CAAAGCCTTT CCAATACCT AGGAAAAGTA GGAGATAGGG CCAGATGCCC	3300

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AGGTCAGCGT AGAAATTGAC TTCTTTGAGA CCAAGACTTT CCAATAGATG ATTGAACACC 3360
 CCTTTATCAA TATTTAGGAA GGCATCTGTA AAGAACTGA TGATAACCCA AGACAAGAAG 3420
 TAAGGGAACA ACATAGAAGT TTGAAAAATC TTCACCATTC TCTTAGAACG GAGCTCGCTG 3480
 AGGATAATGG CAATCCCTAC AGATACAAC TAACTAGAA AGATAAAGCC AAGATTGTAG 3540
 AGGACAGTAT TTCGTGTGAT AATAAGGCG TCTCTGAAC TAAATAAGAA TCTAAATTA 3600
 TCGAGTCCGA CCCATTACT ATTTATGATA CTATCTATGA AACCATTACT GGTCAATGTTG 3660
 TAGTCTTTGA AGGCAACCAC GTTCCCAAAT ACTGGAATGT AAAAGAATAG AATCAACCAG 3720
 AGTGCCCTG GCAAACCAT CAAGAGAAAG ATCCAGTTGT CTCTCAATGT TTTTGAAAC 3780
 TTTTTCATAA TTCTCTCCCT TTTTATTTG ATATCCATCT AAAAATCTT TTTTAGACTT 3840
 TTGATAACGA TTACATTATT AGTATACTCC TATTTGCAGG TTAGGTAAA CTCCTAATTA 3900
 TAGAAAAAC TCCACAAAT ATGTAGCAGA TTTAAACTT TATCACCCT ATCAAACAA 3960
 TGTCTAAAT CAATTGTTA TTTTATCTCT ATTAGCCAG TGATGGCGTC ACTCTGTAT 4020
 AAGCATCCAA CAACGGGTA TACTGAAAA TCTCCAGACT AGGGAACCA GCGATAGTTC 4080
 CTAATCTGGA GATTTTAAAT ATGTTATTAG GCGTTTGCTT TCAACTTAGC AATAACCTCT 4140
 TTAAGATTAT CAATCAATC TGCTGCAGTA TGCTCAGAGC CTTTTCATC TGCCAAGAAC 4200
 AAAACTGCTT TTTGAAGTC TTTTGTAGAG TTTTCAAGGA CATCCTTATC TACTGTTTCA 4260
 AGGTTTGAGT CTTAAGAAG TTTACTTAAT TCTTGGCTA ATTTCTGAG TTTGATTGC 4320
 AGACTCATCT TCTCTGCTG TTTCTTGCC CGCTGTTGT CCTCCATCCT TAGTTGCTGA 4380
 CTGGCTTTCC TTAATGGACT CTAGGGAAGC AATGGCATCT TTGACTGTTT GCAAGATATC 4440
 ACGTAAACCT TGCTCTGTCA AACTATCATC TGCAAAAGCT TTATTAGCCT CTGCCAAAAC 4500
 CAGACGTGCT GAATCTGTG TAGGATTCGA TACACCTGTC AATGATCTCA AAAGATTTTC 4560
 TAAGGTTTGA GTCTGCTTAC TAATACTAGA CTAATAACAA AAAGTATTAT ATAACAGTGA 4620
 TATGAAATCA ACTAAGAAG AATCCAAAC CATCAAAACA CTTTAAAAG ACTCTCGTAC 4680
 AGCTAAATAT CATAAACGCC TTCAAATCGT TCTATTTGT CTGATGGGCA AATCTTATAA 4740
 AGAGATTATA GAACTTTTAT AGTAGTTTGA AATAAGATGT GAACATCTCT ATCAGGAAAG 4800
 TCAAATTAAT TTATAGAAAT ATTTAGCAG CCAAGGTGTA CTGTTATAGA TTCAATACAC 4860
 TATACTTGGT GGTTTAGCTC G 4881

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13121 base pairs
 - (B) TYPE: nucleic acid

869

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

AGGATCCCCG GAAAAGGAGA CTAAAAATGA AGAAAAAATT TCTAGCATTT TTGCTAATTT	60
TATTCCCAAT TTTCTCATTA GGTATTGCCA AAGCAGAAAC GATTAAGATT GTTCTTGATA	120
CCGCCTATGC ACCTTTTGAG TTTAAAGATT CAGATCAAAC TTATAAAGGA ATTGATGTG	180
ACATTATTAA CAAAGTCGCT GAGATTAAAG GCTGGAACAT TCAGATGTCC TATCCTGGAT	240
TTGACGCAGC AGTCAATGCG GTTCAAGCTG GGCAAGCCGA CGCTATCATG GCAGGGATGA	300
CAAAGACTAA AGAACGTGAA AAAGTCTTCA CCATGTCTGA TACTTACTAT GATACAAAAG	360
TTGTCTATGC TACTACAAAG TCACACAAA TTAGCAAGTA CGACCAATTA ACTGGCAAAA	420
CCGTTGGTGT TAAAAACGGA ACTGCCGCTC AACGTTTCCT TGAAACAATC AAAGATAAAT	480
ACGGCTTTAC TATTAAAACA TTTGACACTG GTGATTTAAT GAACAACAGC TTGAGTGTG	540
GTGCCATCGA TGCCATGATG GATGACAAAC CTGTTATCGA ATATGCCATT AACCAAGGTC	600
AAGACCTCCA TATTGAAATG GATGGTGAAG CTGTAGGAAG TTTTGCTTTC GGTGTGAAAA	660
AAGGAAGTAA ATACGAGCAC CTGGTTACTG AATTAAACCA AGCCTTGTCT GAAATGAAAA	720
AAGATGGTAG TCTTGATAAA ATTATCAAGA AATGGACTGC TTCATCATCT TCAGCAGTGC	780
CAACTACAAC TACTCTCGCA GGATTAAGAG CTATTCCTGT TAAGGCTAAA TATATCATTTG	840
CCAGCGATTC TTCTTTTGCC CCTTTTGTTC TCCAAAATTC AAGCAACCAA TACACTGGTA	900
TTGATATGGA ATTGATTAAG GCAATCGCTA AAGACCAAGG TTTTGAAATT GAAATCACCA	960
ACCCTGGTTT TGATGCTGCT ATCAGTGCTG TCCAAGCTGG TCAAGCCGAT GGTATCATCG	1020
CTGGTATGTC TGTCACAGAT GCTCGTAAGG CAACTTTTGA CTCTCTAGAA TCATACTACA	1080
CTGCTAATAC CATTCCTGGT GTCAAAGAAT CAAGCAATAT TGCTTCTTAT GAAGATCTAA	1140
AAGGAAAGAC AGTCGGTGTT AAAAACGGAA CTGCTTCTCA AACCTTCCTA ACAGAAAATC	1200
AAAGCAAATA CGGCTACAAA ATCAAAACCT TTGCTGATGG TTCTTCAATG TATGACAGTT	1260
TAAACACTGG TGCCATTGAT GCCGTTATGG ATGATGAACC TGTTCTCAA TATTCTATCA	1320
GCCAAGGTCA AAAATTGAAA ACTCCAATCT CTGGAAGTCC AATCGGTGAA ACAGCCTTTG	1380
CCGTTAAAAA AGGAGCAAAT CCAGAACTGA TTGAAATGTT CAACAACGGA CTGCAAAACC	1440
TTAAAGCAA CGGTGAATTC CAAAAGATTC TTGACAAATA CCTAGCTAGC GAATCTTCAA	1500
CTGCTTCAAC AAGTACTGTT GACGAAACAA CGCTCTGGGG CTGCTTCAA AACAACTACA	1560

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AACAACCTCCT TAGCGGTCTT GGTATCACTC TTGCTCTAGC TCTTATCTCA TTTGCTATTG	1620
CCATTGTCAT CGGAATTATC TTCGGTATGT TTAGCGTTAG CCCATACAAA TCTCTTCGCG	1680
TCATCTCTGA GATTTTCGTT GACGTTATTC GTGGTATTCC ATTGATGATT CTTGCAGCCT	1740
TCATCTTCTG GGGAAATCCA AACTTCATCG AGTCTATCAC AGGCCAACAA AGCCCAATTA	1800
ACGACTTTGT AGCTGGAACC ATTGCCCTCT CACTCAATGC GGCTGCTTAT ATCGCTGAAA	1860
TCGTTCTGCG TGGTATTTCAG GCCGTTCCAG TTGGCCAAAT GGAAGCCAGC CGAAGCTTGG	1920
GTATCTCTTA TGGAAAAACC ATGCGTAAGA TTATCTTGCC ACAAGCAACT AAATTGATGT	1980
TGCCAACTT TGTCACCAA TTCGTTATCG CTCTTAAAGA TACAACATATC GTATCTGCTA	2040
TCGGTTTGGT TGAACCTTTC CAAACTGGTA AGATTATCAT TGCTCGTAAC TACCAGGTT	2100
TCAAGATGTA TGCAATCCTT GCTATCTTCT ATCTTGTAAT TATCACACTT TTGACTAGAC	2160
TAGCGAAACG CTTAGAAAAG AGGATTCGTT AATGGCAAAA TTAAAAATTG ATGTAAATGA	2220
TTTACACAAG CACTATGGAA AAAATGAAGT CCTAAAAGGA ATTACGACTA AGTTCTATGA	2280
AGGAGATGTT GTTTGTATCA TCGGTCCTTC AGGTTCTGGT AAGTCAACTT TCCTCCGTAG	2340
CCTCAATCTT TTAGAAGAAG TCACTAGCGG TCACATCACT GTGAACGGCT ATGATTTAAC	2400
TGAAAAACA ACCAATGTTG ACCACGTCCG TGAAAAATATC GGCATGGTAT TCCAACACTT	2460
CAACCTCTTC CCTCATATGT CTGTATTGGA CAACATCACC TTTGCTCCTA TTGAGCACA	2520
GTGATGACT AAGGAAGAAG CTGAGCAATT GGAATGGAG TTGCTTGAAA AGGTTGGACT	2580
AGCAGATAAA GCTAATGCCA ATCCAGATAG CCTATCAGGT GGTCAAAAAC AACGTGTGGC	2640
CATCGCTCGT GGCCTAGCAA TGAATCCAGA CATCATGCTC TTCGATGAAC CAACTTCTGC	2700
CCTTGACCCT GAGATGGTTG GAGACGTACT TAACGTTATG AAGGAATTGG CTGAGCAAGG	2760
CATGACCATG ATTATCGTAA CCCATGAGAT GGGATTGCT CGTCAGGTTG CCAACCGCGT	2820
TATCTTTACT GCAGATGGCG AGTTCCTTGA AGACGGAACA CCTGACCAA TCTTTGATAA	2880
CCCACAACAC CCTCGTCTGA AAGAGTTCTT AGATAAGGTC TTAAACGTCT AAACTCAAAC	2940
TGTAAGGATT TCCTTGCAAT TTTTCTACCT CGTATTGGAA TTTTGTGATT TTCGGAAAAT	3000
TATGTTAGAA TTAAGTTTAT GAAATGAGGT TTCCTCATAC CTAGCAAGAC TAGGAATAAA	3060
AATAGAAATT AGGTAGCTAG ATGTCATCTA AGGTTATTGT TACAATTTTC GGTGCGAGTG	3120
GAGACCTGGC TAAACGCAAG CTCTACCTT CCCTTTTATG ACTATATCAA TCCGCAATC	3180
TTTCCAAGCA CTTTGCCGTT ATTGGAAGT CCCGTAGACC TTGGAGTAAG GAATATTTTG	3240
AATCTGTAGT TGTCGAGTCC ATCCTTGATT TGGCAGATAG TACCGAGCAA GCCCAAGAAT	3300
TTGCTAGCCA CTTCTACTAT CAAAGCCATG ATGTCAATGA TTCGGAACAT TATATTGCTT	3360

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TGCGTCAATT ACAAGCTGAG CTTAATGAAA AATACCAAGC TGAACACAAT AAGCTCTTCT	3420
TCTTGCTCTAT GGCACCTCAG TTCTTTGGAA CCATTGCCAA ACACCTCAAA TCTGAAAACA	3480
TTGTCGATGG CAAAGGTTTT GAGCGCTTGA TCGTTGAAAA ACCATTTGGT ACAGATTACG	3540
CAACTGCAAG CAAGTTGAAT GACGAACTCC TAGCAACATT TGACGAAGAA CAAATTTTCC	3600
GTATCGACCA TTATCTTGGT AAGGAAATGA TCCAAAGCAT CTTTGCAGTT CGCTTTGCAA	3660
ACTTGATTTT TGAAAACGTT TGGAAACAAGG ATTTTATCGA CAATGTTCAA ATTACCTTTG	3720
CGGAGCGCTT GGGTGTAGAA GAACGTGGTG GCTACTATGA CCAATCCGGT GCCCTCCGTG	3780
ACATGGTCCA AAACCACACT CTACAATTCT TTTGCTCCT CGCCATGGAC AAACCAGCAA	3840
GCTTCACAAA AGACGAGATT CGTGCTGAAA AGATTAAAGT CTTTAAAAAC CTCTATCATC	3900
CAACTGATGA AGAACTCAAA GAACACTTTA TCCGTGGGCA ATACCGCTCT GGTAAAGATTG	3960
ATGGCATGAA ATACATCTCT TATCGTAGCG AGCCAAATGT GAATCCAGAA TCAACAACCTG	4020
AAACCTTTAC ATCTGGTGCC TTCTTTGTAG ACAGCGATCG ATTCCGTGGT GTTCCTTTCT	4080
TTTTCCGTAC AGGTAAACGA CTGACTGAAA AAGGAATCA TGTCAACATC GTCTTTAAAC	4140
AAATGGATTC TATCTTTGGA GAACCACTTG CTCCAAATAT TTGACCATC TATATTCAAC	4200
CAACAGAAGG CTTCTCTCTT AGCCTAAATG GGAAGCAAGT AGGAGAAGAA TTAACTTTGG	4260
CTCCTAACTC ACTTGATTAC CGTACAGATG CGACTGCAAC TGGTGCTTCT CCAGAACCAT	4320
ACGAAAAATT GATTTATGAT GTCCTAAATA ACAACTCAAC TAACTTTAGC CACTGGGATG	4380
AAGTTTGTGC GTCATGGAAG TTGATTGACC GTATTGAAA GCTCTGGGCT GAAAATGGTG	4440
CCCCACTTCA TGACTATAAA GCTGGAAGCA TGGGACCTCA AGCCAGCTTT GACCTACTTG	4500
AAAAATTCGG TGCCAAATGG ACTTGGCAAC CAGATATCAC CTATCGTCAA GATGGTCGCT	4560
TAGAATAAAA AAATTTCCCTG CAAGTTTATG CcTTGCAGGA TTTTGTCTTC TGATTAGATT	4620
AAACCTTCCA AGAGACCTTT CATAAAGTTT TCTGAGTTAA ACTCTCCAAT ATCATCGATT	4680
TTTTCACCAA AACCAATCAA TTTTACAGGA ATATTGAGTT CTTACGGAAT GGCTAGAACC	4740
ACACCTCCTC GAGCAGTTCC ATCAATCTTA GTCAAAACAA TTCCCGTTAA AGGTGTGATT	4800
TTCGAAAATT CTTTGGCCTG TACTAGGGCA TTTTGACCTG TTGATGCATC AAGTGCCAAG	4860
AAGGTTTCAT GTGGTGCTTC TGGCACAACA CGTTTGATAA TACGACCAAT CTTTTCAC	4920
TCAGCCATAA GGTATCCTT ATTTTGAGA CGACCAGCAG TATCAATCAT GAGAAATATCG	4980
ATACCTTCAG TCACGGCAGC TTCCATACCA TCAAAGACCA CGCTGGCTGG ATCAGCTTTT	5040
TCAGGTCCAG TTACTIONTGG AACATCTACT CGTCGGCCCC ATTCAGCTAG CTGAGCTACT	5100

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GCACCCGCAC GGAAGGTATC TGCTGCAACC AGCATGACCT TCTTACCAGC TTGTTTGTAG	5160
CGGTGGGCTA GTTTTCCGAT AGAAGTTGTT TTCCCAACAC CATTACACCC AACAAAGAGC	5220
ATAACTGTCA AGTTATCTTG GAAGTGGATG CTTTCATCGT AGCTACCATC CTTTTCATAA	5280
AGCTCAACCA ATTTCTCAAT GATGACACGA CGAAGTACAT CAGGTTTCTT GGCATTTTCA	5340
AGCTTGGCTT CGTAACGTAG TTCCCTCCGT AAGTTAGAAG CGACTTGGAC ACCAACATCA	5400
CTCATAATCA GCAGTTCTTC CAGTTCCTCG AAAAATTCTT CGTCAACAGA GCGGAAGTTA	5460
GCAAAGAAGG CATTCAAGCG GGCACCGAAA CCTGTGCGAG TTTTCTTAAG ACTGCGGTCA	5520
TATTTTTCCT GAACAGTTTC TTCTGTTTGA GGAGCTTCTG GTTCAAGCAC TTCAGAATTA	5580
TTTTCTTCTA CAGTTCCTTC GTGCTCAAGC TTCTCTTCCT CTGGTAATTC TTCTGAGTTT	5640
GGTAATTCTT CTATTCTTTC TTGAGAAACC CCTACAGCTG GCTCTGAATC CTGACTTTCT	5700
TCAACTGTGT CTTGGATTTC CTCTCTTGG AACACAGCTT GTTCAACAAT TTCACCTCT	5760
GCTTCTTCCT GAGAACTTC CTCAACTTCT GTGAAGGTAG GATCAACATC TTCAGACAAA	5820
TCAAGATTTT CCAGAGCTTC TTTTACAAC TCTTCGATT TAGGTTCTTC TTTTTCCTCG	5880
AATAGACGGT CAAACAATCC CATATCTTAG TTCTCCTTGA GCACATATTC TTCGATAGCC	5940
CAGGCGACAG CTTCTCATC GTTGGTCATC GCGTCACTA CATTTGCGGC TGCCTTTACT	6000
TCAGGAACAG CGTTTTGCAT AGCAACACCA AGACCTGCCC ATTCAATCAT AGAGAGGTCA	6060
TTGGCTCGT CACCACAAGC CATCACTTGA CTTTGGTCGA TTCCAAGATG GCTGATTAGT	6120
TTTGCCAAAC CTGTTGCTTT ATGAACATTC TTTGGTGACC ATTCTAGCAA CATTTACGT	6180
GATTTAAAGA TTTTATATTG GTCAAACAAT TCTGGAGAAA TCTTCTGAAT GGCTGCATCC	6240
AAGGGTTCTT GAGCAAAGGC AGTCACGCAT TTGTTGTAGG TCATTTGACT AGATAAGTCT	6300
TCAAAGTCCA CTGGAACAAA GGTCAAAGCT GGATTGAATT TGGCATAAAG ACTTCTTTGG	6360
TCCGATTGGA TTTGATAAAC TGTTCCTTCT GAGATGGCAT CAAGAGGCAG TGATAATTC	6420
TCTGTTTCTT CATACAAACG TGCCACATCA TCATATGAAA AGACTGTTTT ATCAAGGATT	6480
TCTCCTGTAT TTTTCTGAAC TAATCCACCA TTAAGGTAA TGGTATACTC ATCTTCCTGA	6540
CCGTCAGTCC CTAACATGAG GAGAAAGAAA TCCATGGCTT TTAAGGGACG ACCAGTTGTC	6600
AATACGACCT TGATACCACG ATCACGCGCA GCTTGCAAGG TTTCTTTGGT ACGATCCGTC	6660
AGCCTTTTAT CAGTAGTCAG CAAGGTCCCG TCCAAGTCCA ATGCAATCAA TTTTATATCT	6720
GCCATTATAA GCCCTCCATA TAAGCTATAA CCGACCGTTC CTTATGGTGA CCAATCACAG	6780
TCTTTGCTAA TTCTAAATTT TCAGGTCGTG CATTTTCAGG AGCTACAGGA TGTCACACAA	6840
CCTGCATCAT ATGTAAGTCA TTAAGATTGT CTCCAAAAGC CATGACCTGA TCCATTGTGA	6900

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TACCAAGTTT TTAACTAAT TCAACAATGG CCACTCCCTT ATCGACATAG TCCAGAACAA	6960
TATCAATGGA TTCAAAGCCA GTTGTCATGG CCTTAACACC AGGAACGTTT TCGTTTACCC	7020
AAGCCTCCCC ATCTTCCAGC GTTCTTCTG TGAAGTTGGT TGTAATTTG AAAATGTCAT	7080
CTGTGATATC TTCCAACTC GCTACTTTT GGATATTTT ATTATAGTGC TGACTCACTT	7140
TCAAATAGGT CTCATCAACC GTATCTAGAA CATATGAACC CTTCTTACCC GTCAAGAGCA	7200
GTTTATTGAT ATCTACATAA GGTGAAGTTT TCAGCTTTT AAAAGTTGCC AGATAAAAGT	7260
CACGAGACAT AGTCGCTTCA TACAAGTCCT GACCTTGATA CTCTACCAA CTGCCATTTT	7320
CCGCGATGAA AATAATGTCA TCACGAACAC CAGCAAATAA TTTTCTAGA GACAGAAATC	7380
CCCACCCTGA AGCTACCGCA AAGTAAATCC CTTTTCCTT GTAGGAAACC AAGAGAGACT	7440
TGAGACGATC CATATCAAAG CGTCCATTCC CATCTAGGAA GGTCCCGTCC ATATCCGTTG	7500
CTACTAGTTT AATGTGATC CTTCAATACT TTCTAAATCT TTTAACTTAA CTGAAACAAT	7560
CTTTGAAACA CCCGATTCTT GCATGGTCAC TCCATAGATG GAATCAGCCG CTGCCATGGT	7620
TCCCTTACGG TGGGTACGA CGATGAACTG GCTGTCCTT TCAAAGCGGT TGAGSTAATC	7680
CCCAAAACGT TTAACATTGG CTTTCATCCG CGCAGCTTCC ACCTCATCCA AGATAACAA	7740
TGGAATAGTC TTGACACGAA TAATGGAGAA GAGCAAGGCA AGAGCCGATA GGGCTTTTTC	7800
ACCACCACTC ATGAGATTAA GAGACTGGAT TTTCTGCCT GGTGGTTGGA CAGAAATTTT	7860
AACCCACGCT GTCAGCAAGT CTCCTCAGT CAAAATGAGG TCAGCCTGAC CTCCACCAA	7920
CATCTGCTTG AAGGTCATT TAAAGGACTC ACGAATGACC TCAAAGGTTG ATTTAAAGCG	7980
TTCTTGACC TCATCATCA TCTCTGTAAT GGTCTCAAG AGCAGGTTT TCGCAGACAA	8040
AATATCATCA CGTTGGCTAT TTAGGAAATC CAGACGGTTG TGAATCTCT CGTACTGTTT	8100
AATAGCGTCT AAATTGACAG GACCCAGTGA GCGTATAGCC TTCTCTAAAT CCTTAACTTC	8160
TTGCTCTGCC AGATTGAGAT TTTCCAACTC ATGCGCCTT TCTAAAGCTT CTGTGTAGCT	8220
GATCTGGTAC TGGTCTGTTA ATTGACTTTG TAGATGGCGC AAGCGCTCGC TAACCTTTTC	8280
TTTCTTGGCT TCAGCACGAG TTGCTTGCG AATCCACTCT TCATTCTGCT GCGGAGCCTG	8340
ATCCAAATGA CTAGCAATAT CATCCAGTTG ACCCTCAATA TCATCCAAC CAACTGCTT	8400
GCGAATCAAA CCTTGTTGGA GATTTGTTTT TTGAGTTTGG GATTCCTCCG CCTGTTGACT	8460
GAGCAATTCT GTATCAACCT TCTCAAGATT ATCAATCTTT TCTTGAAGAA GCGCTGGAT	8520
TTCTCTTGT TCAAATCAA GATTGTCCAA TTCCTTGCCT AAGCGTTCAA TATCAGCAAC	8580
TCATAACGT TTTGCCCTT GCAGTTCTGT CTTAAGCAA CGAGCTTGCG CTAGCTCTTC	8640

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CTGCAAGTTT TGATAGCGTT CTTGGATGGC ATTTTGTGTA GACTTAATCT CTTCAATCTC	8700
AGCTTCCAGA TTTTGCTTGT CACTGGAGAT TGCAGCAAGA CGCTCTTGGC AGTTTTCCTT	8760
ATCCGCTTGC CAATCTCCCT CGGAAAGACG ATCTATTTCC TCTTCTTGA GTTTCCAAAG	8820
AGTTTCCAGT TCTTCAACTT GCTGACTAGT TTGCTGATAA GCGAGGAACA AGCCTTGCTC	8880
CTGAATACGT GCCTGCTCTC CTTGAGATTT AATAGCTTCT AATGACTCGG TCAATCTGGC	8940
CATCTCATCT TGCAAGGTCT TCAAAGTCGC CTCTTCTGAA CCCAAGCTTG CTTCTTCTTC	9000
AGCAATTTCT TTTTGTAATT GCTCCAGTTC TGGCTTGATA AAAATGCTGT TATTCTGGCG	9060
ATTGGCACCA CCTGCATAAG AACCACCTGT GCGCAACTCT GTCCCATCCA ATGTCACCAT	9120
ACGAACCTGA TAACGAACTT GCGGAGCTGC TGCACGCGCA TGTCTACGG TATCAAAGAT	9180
AGCCGTCGTA GCTAGCAAGT TCTTGAAAAT GGCTTCCAGT CTAGTATCAA AAGTCACCAA	9240
CTCATCTGCC ATCCCAAGGA AACCTGGGCT TACAGCGATA GCATCTTGGT TCTGACTAGA	9300
AATCGTACGC GCCTTGATAG TGGTCAAAGG AAGAAAGGTT GCACGACCGG CTCTGTTCGG	9360
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ACTTGCCCTT AAGGCAATCT CTAGGGCAGT TTGATAATAA ACATCAAAGG TCAGATGCTC	9480
ACTGACTGCA CCAATAATCC CACCTAGGCG ATCTTTTCTT TGGAGAACAC TCTTAACACC	9540
TGCATAAAAG TTACTATGAT TTCTCAGGAT ATTTTCCAAA CTTTGAGCTC TGGCCTGCTT	9600
GTTTGTGAGA TTATCCAGAC GGTCAAAGAG TTGGCTTTGT TGAGCTTCAT AGGAAGTTTT	9660
CTGCTCCTCT TGCTCCTTGG CAATAGCTTG GTAGTCAGCC AATAATTTCT GAACCTGCTC	9720
CTTGGCAGTT TCAAGCTCTT CCTTTTGCTG ACTAGCCTTC TCTTTAGCTA TAGCTAATTG	9780
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AAAGCGTTCA CGTAAGAGCT CAATCATCTG ATCAGGATCG TCTGAGAAAG CCAGCAATTC	9960
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GGCTAATTTT CTTTCTAAAT CACTAATCAG ACTAGTCAAG TCCATCAAAC TGCCTTGGTC	10200
TTTGGCCATT TCAGCCTGTA AATCTTGGCG TTGCTTTTPTA AGAGTTTGAT TTTCTTCTTC	10260
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TTCTGTGCGC TCTAGTTCAG CCTTATTTTC CTTGATTTGA GCAACCAGAA CATCTAAATA	10380
AATAGCCTTA CGTTGTCCTT CCAAGTCTAA AACTTACGG GCATTCTCAG CTTGCTTCTC	10440

875

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ATGAATATCA CGCAGACGGA CTTTCTTGCC GTCAATCTTG TATTCGCTAT CTCCACTACG	10740
ATAGACATGG CGTTCCACCC TGATTTCTTG ACCTGCATCC TTGATAAATC CGTCATGATT	10800
ATCCAGAGTC ACAACTACAG AAGCATAATT GAGCGGTTTG CGACTTTCGG TTCCAGCAAA	10860
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ACGCAGACTT TCTGTAATAT TGGACTTTCC AGATCCATTG GGTCCAACAA CTGCCGTCAC	10980
ACCTTGCTCA AAAACGACCT TGGTCTTATC AGCAAAAGAC TTGAACCCCT GAATTTGAT	11040
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ACATCAAAA CTTATCGTG AGCAGGCCCT GTTTCAGAAA TCACCTGATA ACGAATAGCC	11220
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AACTCGCCTG CTTCAACCTT AGGAATCATG ACTTGATAGA TAAATTCCTT GACCTTGGCC	11340
ACATCCTTAT CAAAAGAAG GGCACCAAGA AAGGCTTCAA AGGCATCACC AAGAATGGTG	11400
TCACGATTGC GACCACCTGA TTTTCTTCC CCTTACCCA ACTTGATAAA CTGGTCAAAC	11460
TGGCAATCAC GCGCAAAACC AGCTAAACTC TCCTCACGGA CAATCATAGC ACGGAGTTTT	11520
GATAGGTCAC CTTCAGGCTT TTTAGGATAT TTTTATATA GATATTCTGA AATCAATAAC	11580
TGTAGAACAG CGTCTCCTAA AAATTCCAAG CGTTCATTGT GTGAAATTTT TAAGAGGCGG	11640
TGCTCATTGG CATAACTCGT ATGAGTAAAG GCAGTTTCCA GTAACTTTTT GTCTGCAAAT	11700
TCGATTGCAA AATGATTCTT TAGTACAGTT TGTAATCTT TCATACCAAC CTCTTTCTAA	11760
CTGATAATAG TCCTTTTTAT TATATCAAAA AAAGCCCCCT GAGTCACTCT AAAACGGGAC	11820
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AGGATAAAGA AAAAAGCCCT ATTAAAGGCT TTTTAGGATG TTTACATCCA CCCTGAGGGA	11940
ATCGAACCCC CATCTCAAGA ACCGGAATCT TACGTGATAT CCATTACACT AAGGTGGAA	12000
ACTTGTTTTA TTATAACAGA AATTGCTCT AATAACAAGT TTTTGGTCA AAGACCCCGT	12060
CTTAGTGGGA AGCATCCCCA TTCCAGATGG AGTTTTCAC GATCACATAA TCAACGTGTT	12120
TAAGGTCAGC AACCTGACGT CCACCTGCAT AAGAAATAGC ACTTTGAAGG TCTTGTTC	12180

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TCTCAGTTAA AGTGTCTTGC AGATGACCTT TAGCAGGAAG CAAGATACGT TTGCCTTCCA	12240
CATTTTGTGA AGCACCTTTT TGATATTGTG AGGCTGAACC ATAATATTCT TTGAACTGTT	12300
CACCATCGAC TTCAATCGTT TTCCCTGGAC TTTCAATGTG TCCTGCAAAG AGGGAACCAA	12360
TCATGATCAT GCTAGCACCG AAGCGGATAG ACTTAGCAAT ATCACCGTGA GTACGAATTC	12420
CTCCATCAGC GATAATCGGT TTACGCGCAG CCTTGGCACA CCAGCGTAGA GCAGCCAACT	12480
GCCAAACCACC TGTACCAAAA CCAGTCTTAA CCTTGGTGAT ACAAACCTTA CCAGGACCGA	12540
TTCCGACCTT AGTAGCATCC GCACCAGCAT TTTCCAATTC ACGCACAGCT TCTGGTGTTT	12600
CCACATTTCC AGCAATGACA AAGGTATCTG GCAATTCCTT CTTGATGTGT TGAATCATAG	12660
AAATCACGCT ATCCGCATGA CCATGAGCAA TATCAATAGT GATATACTCA GGAGTATCAG	12720
CCTTGAGCTG GCTAACAAAA TCATACTCAT AATCCTTAAC ACCGACAGAG ATAGAAGCAA	12780
TGAGCCCTTG ATTGTGCATT CGTTTAATAA AAGGAATGCG TCCTGCCTCA TCAAAACGGT	12840
GCATAATGTA GAAGTAACCA CCTTTAGCCA GTTGCTCTGC TACATTTTCA TCCAAAATCG	12900
TCTGCATATT CGCTGGCACA ACAGGTAGTT TAAAGGTGTG ATTTCTTAAA GTGACACTTG	12960
TATCCGCTTC TGCACGGCTT TTAATGACAC ATTTATTGG AATCAATTGA ATATCTTCGT	13020
AATCAAAAAT TGGAATTC ATTAATATAT CGATGTCTCG TTTCTTTTGT AATGACCTAC	13080
CTATGCTCTT GCATCACTAC GCCTTTTCCG ACGTTTCCTG G	13121

(2) INFORMATION FOR SEQ ID NO: 127:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9578 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:

CCGAATGCAA TGTTTACGGT TGAAC TTGAA AATGGACATC AGATTTTAGC AACAGTTTCT	60
GGTAAATTC GTAAAACTA TATTCGTATT TTAGCGGGAG ATCGTGTTAC TGTGAAATG	120
AGTCCATATG ACTTGACACG TGGACGTATC ACTTACCGCT TTAAATAATC GAAAAACTTG	180
GAGGGATAAG AAATGAAAGT AAGACCATCG GTCAAACCAA TTTGCGAATA CTGTAAAGTT	240
ATTCGTCGTA ATGGTCGTGT TATGGTAATT TGCCCAGCAA ATCCAAAACA CAAACAACGT	300
CAAGGATAAG ATAGAAAGGA GAAAACATGG CTCGTATTGC TGGAGTTGAT ATTCCAAATG	360
ACAAACGCGT AGTAATCTCA TTGACTTATG TTTATGGTAT CGGACTTGCA ACATCTAAGA	420
AAATTTTGGC TGCTGCTGGA ATCTCAGAAG ATGTTCTGTG ACGTGATCTT ACATCAGATC	480

877

AAGAAGATGC TATCCGTCGT GAAGTGGATG CAATCAAAGT TGAAGGTGAC CTTCGTCGTG	540
AAGTAAACTT GAACATCAAA CGTTTGATGG AAATCGGTTC ATACCGTGGT ATCCGTCACC	600
GTCGTGGACT TCCTGTCCGT GGACAAAACA CTAAAAACAA CGCCCGCACT CGTAAAGGTA	660
AAGCTGTGTC GATTGCTGGT AAGAAAAAAT AATATAGGAG GTAAAAGTCT TGGCTAAACC	720
AACACGTAAA CGTCGTGTGA AAAAGAATAT CGAATCTGGT ATTGCTCATA TTCACGCTAC	780
ATTTAATAAC ACTATTGTTA TGATTACTGA TGTGCATGGT AATGCAATTG CTTGGTCATC	840
AGCTGGTGCT CTTGGTTTCA AAGGTTCTCG TAAATCTACA CCATTCGCTG CTCAAATGGC	900
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AAAAGGTCCA GGTTCGTGGT GTGAGTCAGC TATTCGTGCG CTTGCTGCCG CTGGTCTTGA	1020
AGTAACAGCA ATTCGTGATG TGAATCCAGT GCCACACAAT GGTGCTCGTC CTCCAAAACG	1080
TCGCCGTGTA TAATCATCGC ATTACACTGC TTTTCGTTA AGAGGGAGTA ACTAAATGAT	1140
CGAGTTTGAA AAACCAAATA TAACAAAAAT TGATGAAAT AAAGATTATG GCAAGTTTGT	1200
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TGCTGAAGTA ACAGCTGGTG ACATTTTGAC AGATAGCGAT ATTGAAATTG TAAATCCAGA	1500
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TGCTGTAGAT TCTATTTATA CACCAGTTAC AAAAGTCAAC TATCAAGTGG AACCTGCTCG	1680
TGTAGGTAGC AATGATGGTT TCGACAAATT AACCTTGAA ATCTTGACAA ATGGAACAAT	1740
TATTCCAGAA GATGCTTTAG GGCTTTCAGC ACGTATTTG ACAGAACATC TTGATTTGTT	1800
TACAAATCTT ACTGAGATTG CTAAGTCAAC TGAAGTGATG AAAGAAGCTG ATACTGAATC	1860
TGACGACCGT ATTTTAGATC GTACGATTGA GGAAGTGGAC TTGTCTGTGC GTTCATACAA	1920
CTGTTTAAAA CGTGCCGGTA TCAATACTGT GCATGATTG ACAGAAAAAT CTGAAGCAGA	1980
GATGATGAAA GTACGAAATC TTGGACGCAA GAGTTTGAA GAAGTGAAAC TCAAACATCAT	2040
TGATTTGGGT CTTGGATTAA AAGATAAATA AAGGAGGAAT ACATGGCTTA CCGTAAACTA	2100
GGACGCACTA GCTCACAACG TAAAGCAATG CTTCCGATT TGACAACCTGA CCTTTTGATC	2160
AACGAATCAA TCGTGACAAC TGAAGCTCGT GCTAAAGAAA TCCGTAAAAC TGTGAAAAA	2220

878

ATGATTACTC TAGGTAAACG TGGTGATTG CATGCACGTC GTCAAGCAGC TGCTTTCGTA	2280
CGTAATGAAA TCGCATCTGA AACTATGAT GAAGCAACTG ATAAGTACAC TTCTACTACA	2340
GCACCTCAAA AATTGTTCTC AGAAATCGCA CCTCGTTATG CTGAACGTAA CGGTGGATAC	2400
ACTCGTATCC TTAATACTGA ATCACGTCGT GGTGATGCAG CGCCAATGGC GATCATCGAA	2460
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AGTAGACGCT TGTTTACGAA ATTGTTTTTT TCTTAAGAAC AACTTCGTAA GCAGGCGTTT	2640
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CTTAGCAAAG GTATTGAGAC GACTACTTCC TAAGCTTTCA GCAGCTTCTT CAATACTTGG	5700
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AAATTGGTCT GAAATAGCCA TGGCTTCTTC TTGGTCGTGG GTTACATAAA CAGTTGTAAT	7560

881

TCCCACTTCG TGTGGATTT CTCGGATGGC TTGACGCATA TCCAAGCGAA GTTTGGCCTC	7620
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TACACTTTGA CTGCTAAAAT ATTTCTATAA ATTAATTGA CTTTCCTGAT AGAGATGTTT	9300

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ACATCTTATT TCAATTCAC	ATATTAGAGT AAAATTCTCT	ACAAAAAGAA GAATAGCCTA	9360
TTTTACTATT CTTCTGAGTG	ATTTC AATTC CTTTGGGGAA	ATATGGAGAT ACTTTTAAA	9420
TCCTGACAAA TGGTTGTTTC	TTTTTCTAAA TCGGTGATAC	TGTATCGGAG AATGCGCGTG	9480
AGGTCACAAA GGCTGCGATA	GAGCTTCTAT GGAGAATTC	TTTTTGGAGA GATTTTTAA	9540
AGGAATGAGA CATCCGCTAC	CTCCTTGGAA GGTTTTGT		9578

(2) INFORMATION FOR SEQ ID NO: 128:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13440 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:

CGGGCTGTTG TGACGATTCT	TATTTCTATC TGTGTTATCT	TTTTGGGAAC TATTTTGGGT	60
GTTGTCTTGG CTTTGGGGCA	ACGTTCAAAG TTAAACCGC	TTGTTTGGTT GGCCAACTTG	120
TACGTTTGGG TTTCCGTGG	GACACCGATG ATGGTTCAA	TTATGATTGC CTTGCTCTT	180
ATGCATATCA ATGCTCCGAC	TATTCAGATT GGAATTTTAG	GTGTTGATTT TTCGCTCTG	240
ATTCAGGGA TTTTGATTAT	CTCTATGAAT AGTGGTGCTT	ATGTTTCGGA GACTGTTCTG	300
GCCGGAATCA ATGCGGTTCC	AAAAGGTCA CTAGAACCG	CTTATTCGCT AGGGATTCTG	360
CCTAAAAATG CGATGCGTTA	TGTGATTTTG CCACAAGCAG	TCAAAAATAT CTTGCCAGCA	420
TTGGGGAACG AATTTATCAC	CATTATCAAG GACAGCTCCC	TCTTATCAGC TATTGGGGTC	480
ATGGAGTTGT GGAATGGGCG	TACAACAGTT TCTACAACAA	CCTATCTACC TTAAACACCA	540
CTTTTATTTG CAGCATTTTA	CTACTTGATT ATGACCTCTA	TTCTGACAGT AGCCTTGAAA	600
GCTTTTGAAA AACATATGGG	ACAAGGAGAT AAGAAATAAT	GACAGAAACC TTGATAAAAA	660
TTGAAAATTT ACATAAATCC	TTTGAAAGA ATGAAGTATT	GAAGGGCATC AACCTCGAGA	720
TTAAAAGAGG AGAAGTTGTC	GTTATCATCG GTCCTTCAGG	GAGCGGGAAA TCTACCTTGC	780
TTCGCTCTAT GAATTTGTTG	GAAGAAGCAA CCAAGGGGAA	GGTTATCTTT GAGGGAGTCG	840
ATATTACGGA CAAGAAGAAT	GACCTGTTTG CCATGCGTGA	GAAGATGGGC ATGGTTTTC	900
AACAATTCAA TCTCTTTCCT	AATATGACTG TGATGGAAAA	TATCACCTTG TCCCCTATCA	960
AGACCAAAGG TGACAGTAAG	GCCGTTGCAG AGAAAAGAGC	TCAGGAACCT TTGAAAAAG	1020
TTGGTTTGCC AGATAAGGCA	GACGCTTATC CACAGAGTTT	GTCAGGTGGC CAGCAACAGC	1080
GGATTGCCAT CGCGCGTGGG	TTGGCTATGG AACCAGATGT	TTTGCTCTTT GACGAGCCAA	1140

CTTCAGCCCT AGATCCTGAG ATGGTTGGAG AAGTTCCTGGC TGTATGCAA GATCTAGCCA	1200
AGTCAGGAAT GACCATGGTT ATCGTAACAC ATGAGATGGG ATTTGCCCGT GAGGTGGCAG	1260
ATCGTGTGAT CTTTATGGCA GACGGTGTGG TTGTTGAAGA CGGAACACCT GAGCAGATTT	1320
TTGAACAAAC CCAAGGACAA AGGACTAAAG ACTTCTTGAG TAAGGTTTTA TAAGTTAGCT	1380
TTGTTTAGCT ATTTGTAGCC AGCTTTAAAC GTTAAAGAGA AGATTAGTGA AAAGCTCAAC	1440
CAGAGCTTTT TCTTATAGTT TAAAGCTATA GGATTGCCCTA GGAAAGAAGT GTTAGAGCTA	1500
CATTGTATTT TTTGGTATAA TTAAAGATAT TTGTAAGAAA AGAGAAGTGA TATGACACAG	1560
ATTATTGATG GGAAAGCTTT AGCGGCCAAA TTGCAGGGGC AGTTGGCTGA AAAGACTGCA	1620
AAATTAAAGG AAGAAACAGG TCTAGTGCCT GGTTTGGTAG TGATTTTGGT TGGGGACAAT	1680
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AGCGAAGTAG TACGGGTTCC AGAGACCATT ACTCAAGAGG AATTGTTAGA CCTGATTGCT	1800
AAATACAATC AGGATCCAGC TTGGCATGGG ATTTTGGTTC AGTTGCCATT ACCAAAACAC	1860
ATTGATGAAG AGGCGGTTCT ATTGGCTATT GACCCAGAAA AGGATGTGGA TGGTTTCCAT	1920
CCTCTAAACA TGGGGCGTCT TTGGTCTGGT CATCCAGTCA TGATTCCTTC GACACCGGCA	1980
GGAATTATGG AAATGTTCCA TGAATATGGG ATTGACTTGG AAGGTAAAAA TGCAGTCGTC	2040
ATCGGTCGAT CCAATATTGT CGGAAAACCT ATGGCCAGC TTCTTTTGGC AAAGAATGCA	2100
ACAGTAACCT TCACTCACTC ACCTACTCAT AATCTTTCCA AGGTGGCTGC AAAAGCAGAT	2160
ATTCTGGTTG TTGCAATCGG TCGTGCCAAG TTTGTGACTG CTGACTTTGT CAAACCAGGT	2220
GCGGTAGTCA TTGACGTTGG GATGAACCGC GATGAAAATG GTAAGCTCTG TGGGGATGTT	2280
GATTATGAGG CGGTTGCCCC ACTTGCTAGC CACATTACGC CAGTCCCTGG AGGTGTCGGT	2340
CCTATGACCA TTACTATGCT GATGGAGCAA ACCTATCAGG CAGCACTTAG GACATTGGAT	2400
AGAAAATAAG ATAAAAATTT TCTGAGGAAA GTGTATTTTC TATAGCTATA TCTAAATGA	2460
TAGAAATGAA TATTAAATTT TAGAATAAG TTTATAAAG GAGGTTTGGC CCTCCTTTT	2520
GTTGTATAAT GGAGTGAGGT GATTAGATGA TTTTAAAAAT TTATAATGGG GAATATAGTT	2580
TACAATGGGA TGGAATATAC TACTTAGCAC TAATTGATTA TCCAAATATT CAAGAGTGGG	2640
AATTAGAAAA AATTGCTAAA TTTATAGCTT ACGAAAAACT TCATAAACGT CAAACAAGTA	2700
TTGAGTGTGC TGATTCCTGT TTAAAAAAG AAATTTTGA TTACATCTGT CAGCATCCCT	2760
TTCTGCCACC ATTTACTCCT ACAGATAAAA GAGTAGCCTC GACTTATGAC CTACATAAGA	2820
GGTTAGTGAC TTCAGACTAC TGAGTCATA CTACGACTAT AGATGCAGCG ATTTCTATTT	2880

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TTAAACTGG TCGTCTTTTA TCTGCTGTGA AAGCCTTTGG GCGAGATGCT GAGGAGTTGG	2940
TTTGGATAG TCGAAATGCT GCATCTGATC CGATAGATTA TTTGACTAT GTCATGTTAG	3000
GGTGGTCAAA TACAAGTTCT GGTATCGAT TGGCGATGGA GCGTTTATTA GGTGAGCTC	3060
CTTCAGAGAA AGAATTACAA GACAAGTTTA TTCCTGGAGT AAGTTTTCAT TTTATCTATA	3120
CAGATTTGAT TAAAGTTCCT GGTATATTT TTGATGGTTA CCATGCTGTA AAAATTAAGG	3180
ACATGCTTAA TTTATTAAGT GAGTTGTATA TTTGCATTAT TCCAACATCAT AATAAGAGCC	3240
AATTTGAAAA TATTATTCOA ACCAAAATAC AAGATAGGGT GTATTATCTT GACTATGCTG	3300
GAGAAGACTT AGAAGAGTGG ACTAAGAAAG TCTATCAAGT TGTTTTAAAA CAATCAGATA	3360
AAGGATAGTT GAGGAAAAAA CGATGAAAGT GATTGATCAA ACCTTACTAG AAAAAGTCAT	3420
TATTGAACGT TCTGTACAA GTCATAAAGG AGACTACGGT CGTCTGCTGT TGCTTGGTGG	3480
GACTTATCCT TATGGTGGTG CCATCATCAT GGCTGCTTTA GCAGCTGTAA AAAGCGGTGC	3540
AGGATTGGTA ACCGTTGGAA CGGACAGGGA AAATATCCCT GCTCTACACA GCCATTTGCC	3600
TGAGGCTATG GCCTTTCTC TGCAAGATCA GTAATTGTTA CAAGAGCAAT TGGAGAAGGC	3660
AGAAGTTGTC TTGCTGGGGC CTGGTTTACG AGACGATACG TTTGGAGAAA ATCTTGTAAG	3720
ACAGGTCTTT GCTAGCTTAA AAAAGAATCA GATTTTGATT GTAGATGGAG GGGCCTTAAC	3780
CATCTTGCT AGGACAAGTT TGTGTTTCC ATCTAACCAG CTTATCTTAA CTCCTCACCA	3840
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GACTGGTGGT ATGGGTGATA CACTGGCTGG AATGATTGCA GGATTTGCAG GCCAATTTTCG	4080
ACAGGCCAGT CTCTACGAAC GTGTGGCAGT AGCAACCCAT CTTATTCTAG CCATAGCCCA	4140
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AGTAATGAAA AGATATGTCT AAAATAGTTA GACAAAAAAT GTTGATAATT TGTATCATTA	4260
TTCTTAATTC AAAAAACG AACGTTTAGT ATTCTTCTTG CTAAGAACT AAATTTGTTC	4320
GTTTTTTTAC TCTTGTAAT CTATTTTGT TAGAGTTGAT TTGGTTTACA TCCGTACTTA	4380
AATTGATTG TTAGAGCTCT ACTTTTATTA AAAAAATCA ATTTCAAGGA TAAATAAGCA	4440
GTATCTATAA GGTACTTTTA GATGAAATAA AAGCCTTAC ATGGTATAAT AGAGGTAGCT	4500
CTTTAATGGA GGTGTTTGAG TGGAAAATCT GAAGAAAATG GCAGGTATCA CGGCTGCTGA	4560
ATTTATCAAG GATGGGATGG TTGTAGGGCT AGGAACAGGT TCTACTGCCT ATTATTTGT	4620
CGAAGAAATC GGTGCTCGAA TCAAGGAAGA AGGCTTGCA ATTACAGCTG TGACGACTTC	4680

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TAGTGTGACC AGTAAACAGG CTGAAGGGCT CAATATCCCG CTCAAGTCTA TTGACCAAGT	4740
AGACTTTGTC GATGTGACAG TCGACGGGGC GGATGAAGTG GATAGTCAGT TTAATGGAAT	4800
CAAAGGCGGT GGTGGTGCCC TTCTCATGGA AAAGGTGGTC GCAACACCAT CAAAAGAATA	4860
CATTTGGGTG GTGGATGAAA GCAAGCTGGT CGAAAACTA GGTGCTTTTA AATTGCCAGT	4920
AGAAGTGGTT CAGTATGGTG CAGAGCAGGT CTTTCGTCTT TTTGAACGAG CTGGCTACAA	4980
ACCAAGTTTC CGTGAAAAAG ACGGCCAACG TTTTGTGACC GATATGCAGA ATTTTATCAT	5040
TGACCTCGCC TTGGATGTCA TTGAAATCC AATTGCTTTT GGACAAGAAT TGGACCATGT	5100
CGTTGGTGTG GTGGAGCATG GTTATTCAA CCAATGGTG GATAAGGTAA TCGTTGCTGG	5160
ACGAGATGGA GTTCAGATTT CAACTTCAAA AAAAGGAAAA TAGAAGGGGG CATAAGATGT	5220
CTAAATTTAA TCGTATTCAT TTGGTGGTAC TGGATTCTGT AGGAATCGGT GCAGCACCAG	5280
ATGCTAATAA CTTTGTCAAT GCAGGGGTTT CAGATGGAGC TTCTGACACA CTGGGACACA	5340
TTTCAAAAAC AGTTGGTTTG AATGTCCCAA ACATGGCTAA AATAGTCTT GGAAATATTC	5400
CTCGTGAAAC TCCTCTTAAG ACTGTAGCAG CTGAAAGCAA TCCAACCTGA TATGCAACAA	5460
AATTAGAGGA AGTATCTCTT GGTAAGGATA CTATGACTGG ACACCTGGGA ATCATGGGAC	5520
TCAACATTAC TGAGCCTTTC GATACTTTCT GGAACGGATT CCCAGAAGAA ATCCTGACAA	5580
AAATCGAAGA ATTCTCAGGA CGCAAGGTTA TTCGTGAAGC CAACAAACCT TATTCAGGAA	5640
CGGCTGTTAT CTATGATTTT GGACCACGTC AGATGGAAAC TGGAGAGTTG ATTATCTATA	5700
CTTCAGCTGA CCTGTTTTG CAGATTGCTG CCCACGAAGA CATTATTCCT TTGGATGAAT	5760
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ACATGGGTCA CAACAAGTCA AATAGTCATG GAATTGATAC ACTATTGAAG ACTATGGGAC	6060
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GCCATCGTCG TAATGCTCAC GGTACCCTG ATTGCTTGCA TGAGTTTGAT GAACGCTTAC	6180
CTGAAATTAT CGCAGCTATG AGAGAGAATG ACCTTCTCTT GATTACTGCG GACCATGGAA	6240
ATGACCCAAC GTATGCAGGA ACGGATCACA CTCGGGAATA TATTCCATG TTGGCCTATA	6300
GCCCTGCCCT TAAAGGAAAT GGTCTCATTC CAGTAGGACA TTTTGCAGAT ATTTCAGCGA	6360
CTGTTGCCGA TAACTTTGGT GTGGAACTG CTATGATTGG GGAAAGTTTC TTAGATAAAT	6420

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TGGTATAAGA TGACGCGCTA TGCTTTGCTG GTGAGAGGTA TCAATGTTGG TGGTAAGAAT	6480
AAGGTCGTCA TGGCGGAGCT TCGTCAAGAA TTGACAACT TGGGACTGGA AAAGGTTGAG	6540
AGCTACATCA ATAGTGGCAA TATTTTCTTT ACTTCGATAG ATTCCAAAGC CCAATTGGTT	6600
GAAAAGCTAG AGACTTTCTT TGCAGTCCAT TATCCATTTA TTCAGAGCTT TTCTTTACTG	6660
AGTCTAGAGG ACTTTGAGGC GGAACCTGAA AATCTACCAG CTTGGTGGAG CAGAGACTTG	6720
GCACGAAAAG ATTTTCTCTT TTACACTGAG GGTTCGGATG TGGACCAAGT CATCGCGACA	6780
GTTGAAAGTT TAGAGCTGAA AGATGAAGTG CTTTATTTTG GAAAACCTGG GATTTTCTGG	6840
GGGAAATTTT CTGAAGAATC CTATTCTAAG ACTGCCTATC ATAAGTACTT GCTGAAGGTG	6900
CCTTCTTACC GCCACATTAC TATTCGTAAT GCTAAAACCT TTGACAAAAT TGGTCAAATG	6960
CTAAAAAAT AATAAAGGAG ACACACAATG ACATTTTAA ACAAAATCCA TGAAGCTGCT	7020
ACTTCTCGA AAGAAAAGGG AATGCGAGCC CCTGAGTTCG GTCTAATCCT TGGATCAGGA	7080
CTTGAGAAT TGGCAGAAGA AATCGAAAAT CCAGTTGTAG TAGACTATGC TGAGATTCCA	7140
AACTGGGGCC GTTCAACAGT AGTCGGTCAT GCTGGTAAAT TGGTATATGG TGAAGTGGCA	7200
GGTCGCAAGG TCTTGGCTCT TCAAGGGCGT TTCCATTCT ATGAAGGGAA TCCTCTGGAA	7260
GTGGTGACTT TCCCAGTTCG TGTGATGAAA GTTCTTGGAT GTGAAGGTGT TATTGTAACC	7320
AATGCAGCTG GCGGTATCGG ATTTGGTCCT GGTACCTTGA TGGCTATCTC AGACCATATC	7380
AACATGACGG GGCAAAATCC ATTGATGGGT GAAAACCTGG ATGACTTTGG CCCACGTTTC	7440
CCAGATATGT CTAGGGCCTA CACACCAGAA TACCGTGCCA CTGCCATGA AGTGGCTAAA	7500
AAACTTAATA TCAAGCTTGA TGAAGGTGTC TATATCGGAG TTAGTGGTCC GACTTATGAA	7560
ACACCAGCAG AAATTCGTTC CTATAAGACA CTGGGAGCAG ATGCAGTTGG TATGTCTACG	7620
GTTCCTGAAG TTATCGTGGC AGCCCACTCT GGCTTGAAAG TTCTGGGAAT TTCATGTATC	7680
ACTAACTTTG CGGCCGTTT CCAAGAAGAA CTCAATCACG AAGAAGTTGT AGAAGTGACT	7740
GAACGTGTTA AAGGTGATTT CAAAGGCTTG CTTAAAGCGA TTCTTGCTGA ATTGTAAGAA	7800
AAAAGATTTA AAAGGGGAG TGCCTCTGTT TTTTCAGGAT TGAAGTGCCTA TCCGATTAA	7860
AGAAGAAACA GAGGAATACT ATGAGCTTCT TCCTGCTCTT ATAAGTAAA GAAGCGGAAG	7920
AATAGGTATG TCTGATCTGA TAGCCAGCAT TGTGAAAGAC AAGATTCTAG GATACTAGCA	7980
TTAGCTTCCT AGCCAAGCAG ACTAGTATGA TAAGGAGAGA TGAGAATGAA TTGACTTTCT	8040
GAATTTCTCA GTCTTATCAT ATATAGCACA ATGAGATTTC GCTTGAGTCT GCTTGTAAT	8100
AAACGAAAAG AAAGATAAGA AATAATGAAA ATTGGTCAAC GAATTATGCG CTTTGGCATA	8160
AAAAATTAAG TATCGGAGTT GTATCTGTTG TAGTCGGCTT TGATTTCTAG CTCCAGCTGG	8220

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AATTTTCAGCC	AATGAAGTAA	AGCAAGATGT	AACATCTGAA	GTGGTAATAG	GTGTGCTAGA	8280
TTCTAAGGAG	GAAATTGAAAG	AGTCAGAAAA	TGATGCTCCA	AAACTAGAAA	CTCCTCTTAG	8340
AGAGGAGCCA	AGACTAGCTC	CTCAAACGCT	TCCGGAAGCA	AGTGAAGTTC	TTGAAAACAA	8400
AAGGGAAGAG	TCAAAAGTAG	AGATAACATA	ACCAGCTCAA	GCGGATGATA	TCCGCAAGGT	8460
TGTTGGGGAA	TTAGCCAAGG	ATATAAGTAT	TACTAAGTTG	TATATGACAG	GTCAITCTCT	8520
TGGATGTTAC	CTAGCTCAGA	TTGCAGCGGT	TGAAGCTTAC	CAAAAATATC	CTGATTTTAA	8580
TAACCATGTA	TTGAGGAAAG	TGACAACTTT	CAGTGCTCCT	AAAGTGATTA	CTTCCAGAAC	8640
TGTTTGGAAT	GCTAAGAAATG	GTTTCTGGGA	TGTTGGTTTG	GAAAGTCGTA	AATTAGCTGT	8700
TAGTGGAAAA	ATTAAGCATT	ATGTGGTTGA	TAATGACAAT	GTTGTGACTC	CCTTGATTCA	8760
TAATAATCGT	GATATTGTTA	CATTTACAGG	TAATTCACGC	TTTAAACACC	GTTCTCGTGG	8820
CTATTTTGAA	AGTCCAATGA	ATGATATTCC	TAACTTTAAT	ATTGGTAAAC	AAGCTACCTT	8880
GGATAAACAT	GCTTATCGTG	ATCCGAAATT	GGATAAAGTG	CGATTCTTTA	AGAAACAGGC	8940
TCTGCCTCGA	TCTTCTAGTC	AACCAAGCGC	TGAACCAATG	GAAATATTTG	CCTCAGGAAA	9000
ACAGGTTACT	CAAAGTTCGA	CAGCTTTCGG	AGGAGATGCT	AGAAGAGCTG	TGGATGGCAA	9060
AGTCGATGGT	AACATATGGT	ACAATCTCTG	CACTCATACA	AACTTCCAAT	CTAAGCCTTG	9120
GTGGCAAGTA	GATTTGGCTA	AAGAAGAAAC	CATTGCGCAA	ATCAATATTT	ACAACCGAAC	9180
AGACACTGCC	CAGGATAGAT	TGGCHAACTT	TGATGTCATT	CTTTTAGACA	GTTCTGGTAA	9240
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AGAAGTTGAA	GTTTTCTGCT	TTATAGCTAC	GAATGCTGAA	ACGGCGACAC	AAGTTTCTAA	9420
GCCAGTTCAA	CCAATCAGTC	AGACTCCTGT	GAAGGATAAA	ACATTGACAA	TTCAACACAG	9480
TGGAGCTTAC	ATTGCCCGCT	ACTCCATAAC	TTGGGAAGAA	GTTCCAGTAG	ATAAAGATGG	9540
AAACCAAGTT	GTTCTGTAGTC	ATTCTTGGGA	AGGAAGCGGT	CGCAACCAGA	CTGCAGGTTT	9600
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GACGGGCCTA	CTATGGAATA	GATGGCAAAC	AATCTATGAA	AACAGACCAA	TTTTAGCTCA	9720
ACCCACCCGT	AAAATTACCC	ATTGGGGTAC	GACATTGAAT	TCCAAGGTGA	GTGACGATGA	9780
TGTCTTGTA	TCTGATGGTA	GAATGACAGT	TAGTTTGTCT	AGTTTATAAG	AAAGTACTAC	9840
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AATCAAAGAG	CAAACTAAGA	AACTAGCCGC	AGGTTGCTCA	AAGCACTGCT	TTGAGGTTGT	9960

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GAGATTTTCG AAGAGTATAA ACAGAAAGGT AGAGCGCGTG TTCTAATTG AACACGAGTA	10080
GAAAACCTTT CTA AAAACAA AAACGAAAGG ATGGGTAAAC TGTATTCGCT GAACTGAATA	10140
CGGGCGACTC TCCTCTAAAT CAAAATTAAG AAAGGAATTG ACCCCACCCT AAAAGTAGTG	10200
GGAAAAAGAT AGTTGATCTA GCGAGCATCG CTCACTGCGC CCAACTCCTA TTTTCCCTTC	10260
GCTTTTGTAT GGGTTTGTA TCTTCTCAA TATAAAATAT AAAATAAAGA AAGGTAGAGC	10320
GTGTGTTTTG ATTTGAACAC GAGCGGAAAA CTCGGAAAA AGATAATCTG ACTGAAAAAT	10380
CAGGATTCT CGTCAGGTTT CTAATTTTCA GTCGTTTTCT TCTCGCTCTT TGTATCATAA	10440
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GGGGATCCTC TTCGTGCTAA GTTTATTGCG GAGAATTTCC TTGATGATGC TGTGTGTTTT	10560
AACGAAGTGC GTAACATGTT TGGTTACACT GGTACTTACA AGGGTCACTG TGTATCTGTC	10620
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TACGGTGTGA AGAAATTGAT TCGTGTGGGA ACTGCAGGTT CTTTGAATGA AGAGGTTTAT	10740
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TGGCCACAGT ACGATTTTCC ACAAATTGCT AGCTTTGATT TGCTTGATAA AGCCTACCAT	10860
ATCGCCAAAA AACTTGGTAT GACTACTCAC GTTGGGAACG TTTTGTATC TGATGCTTTT	10920
TACTCAAAAT ACTTTGAAAA GAATATCGAG CTTGTTAAAT GGGGAGTCAA GGCTGTGGAA	10980
ATGGAAGCAG CAGCTCTTTA CTATCTTGCT GCCCAATACC ATGTTGATGC GCTAGCTATC	11040
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CAAAGTTCCG AAAACCAAAG GCATTGCGCT TGATAAGTTT GATGAGATTA TTGGTCGCTT	11340
CCAGTTTGGC ATTAGAATAG TGTAGTTGAA GGGCGTTGAC GATTTTCTCT TTGTTCTTTA	11400
GAAAGGTTTT AAAGACAGTC TGA AAAAGAG GATGAACCTG CTTGAGATTG TCCTCAATGA	11460
GTCCGAAAAA TTTCTCAGGG TCTTTGTCT GAAAGTGAAA AAGTAAGAGT TGATAGATCT	11520
GATAGTGGTG TTTCAAGTCT TCTGAATAGC TTAAAATCTT GTCAAGAATT TCTTTATTTG	11580
TTAAGTGCAT GCGAAAAGTA GGGCGATAA AACGTTTATC GCTsArTTTA CGACTATCCT	11640
GTTGGATGAG TTTCCAGTAA CGCTTGATAG CCTTGATTTC ATGAGATTTT CGTTCAAAC	11700
GATTCATAAT TTGAACACGA AAACGACTCA TGGCACGGCT GAGATGTTGG ATAATATGGA	11760

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AACGATCTAG AACGATTTTA GCACACGGAA AAAGCTGTTT AGCCAAGTCA TAGTAAGGAC	11820
TAAACATATC CATCGTAATG ATTTTCACTT GACAACGAAC GGCTCTATCG TAGCGAAGAA	11880
AGTGATTTCG GATGACAGCT TGTGTTCTGC CTTCAAGAAC AGTGATAATA TTAAGATTAT	11940
CAAAATCTTG CGCAATGAAA CTCATCTTTC CCTTAGTGAA GGCATACTCA TCCCAAGACA	12000
TAATCTTTGG AAGCCGAGAA AAATCATGCT CAAAGTGAAA GTCATTGAGC TTGCGAATGA	12060
CAGTTGAAGT TGAAATGGCC AGCTGATGGG CAATATCACT CATAGAAATT TTTTCAATTA	12120
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GAGTCTCAGC AACCATCATT TTTGAAsAGT GATAGCACTT GAAACGGCGT TTTCTAAGGA	12240
GAATCTAGA AGGCATACCA GTTGTTTTGA GGTAAGGGAT CTTAGACGGT TTTTGAAAGT	12300
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CGATAATTTT TTTGTGGGTA TCCATATTGA TGATATCTAG AATCTTGATG TTTGGGTCTT	12420
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ACAATACTGA CTTTATGTGA ATATTCTTGG CAAAGTTTTT GGTAAATTTT TTTTIGAGTT	12720
TTGCGGACGC CCATCCCAA GAATCCATCT GATAAACTCC CACTCAAAGC GTTCAGGGCA	12780
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AAAGTTTTTT ATCTCGGTTA ACATCCATTC GCAGTCACTG TCTTGCCAAC CAGGTTGAAA	13020
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AGTTGACTTA CCAGAACCAG AATATCCGAT AATTGCGATT TTCATTTTCT ACCTTTTCCT	13140
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GACGAGCTTT ATCGCGGCTT GCTTTGTTTT TGTGAATCAA ACCTTTAGTT TCTGCTTTAT	13260
CGATAGCTGA GCTAGCAGCA CGGAAAAGTT CTTCAGATGG GTTTGCTTCG AAAGCTTTTA	13320
TAGCAGTACG CATAGCTGAT TTTTGAGCTG AGTTCTTTTC GATTCGTCTA ACGTTCAATT	13380
CAGCGCGTTT GATAGCTGAT TTAATGTTTG CCAATGGTCT TACCTCCATA TTTACTAACT	13440

(2) INFORMATION FOR SEQ ID NO: 129:

890

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8512 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:

CCTTTTTTCA AAAACTAGAT ACTAGTCTAT CAAAAGTAGG AAAGGGTTTC AAGAAAATTG	60
ATTGGAAATT TTTTGAAAAT CATAGAACTA TTAGCTAATC CCTAGTATTG AAAAGACTGG	120
ATAGCTTCTT TCAGGTCATC TTGTAACTA TTTCTCTGGT CAAGTTGGAC ATAGACTTCC	180
ACCAGACAGG ATCTAAAGTT GGAAAATTG TAAAAATCCT CCCTTTCTTC TATCGGAAAA	240
TCACAGTTT TTATCCAAGA AGCTACTTGT TCTTGCTCCA ACTTCCCTTG TAAAATAGGT	300
TCATAGATCA CTCTGCTAA ACGCCAATCC TCATCATCTG TAAAGCGAAT CGACATTCTT	360
TTAAATAGTT GGCCAAGTAT ATCAAATACT TCATGAAGTC TGTTTTAGG AAAGTCTGGA	420
TGACAAACCA CCTCTGTCAG TAAATCGGCT CCATGTGCAA AAGCGTGAAC CCAACCATAC	480
TGACTTGAGA AACCCCTTGT ATCCTTTTCT TTTGAAAGAT AGTGCAAGCC TTGATTTAAA	540
AGGACATTAC GAATTTCTGG AGAAGGATTT CCCAAATGAT CAAACAACCA CTGGATTCTT	600
TCCTGGTTAT AATTTGGTTT TTCTTCTCTT ATTTTCTTA GTAAATCTTG ATACATGGTC	660
AATACCTCTA CATTCTAGC AACTGTTCAA AAAGGCAGTC TTAAATGACT CAATATTGAA	720
TTCTCAATTA AATACAATCT GATATAAAT GACGTAAATA ACTATCAATA CCAGTTCTAC	780
AGTAAGTTCA AATTAAACAT CACGACCTTC AACGACATTT TTGAAAATAG CTACAATAA	840
GACAAATAGA ATGACGCTTA ACAAGCCCAT AAACATCATT CTAAAAAATT TTTCTATTCC	900
CCTACTCTCC CAACTCAGCA CTATAGGAGA TAATCTGGTC AACTGTGTCA GACAAGAATT	960
GGATGGTATC ACGGAGTGGT TTGTCTGTTG AAATATCAGC ACCGATAATC ATGGCTGACT	1020
CAAGTGGTGT CTGCTACCA CCTGATTGA GGAGATTGAG CCAGTCTTCA GCTCCAGTTT	1080
CAGAATGTTT TAGATGAAGG TAACCAGCAG TCGAGATAAC TAGTCCTGCT GAGTAAGTGT	1140
AACATATCAA GCCCATATAG TAGTGAGCTT GCGCATCCA AGTCAGAGTT GCATCATCGT	1200
CAATTTCAAT AGCATCTCCC CAGAAATCCG TCAAACTTC CTTCATAATG CTGTTGAGCT	1260
TGCTTGCTCC AAAGGTCTCC CCTTCTTCAA TCAATGTATA CACCTTACGC TGGAAGGCGG	1320
CTTCCAAGAG GTGGGTGATA AAGTTATGGA AGTAGGTGTC TGCAAGCGA TGAGCCAGAG	1380
CGAAGCGTTT TTGACGTGGG TCATTAGACT GGTCTCCAA GTAATCACTG AGTAGCAATT	1440
CATTGAAGGT TGACGGTGCT TCAACATAGT AGGTCGACAT ATGGGCATTG AAGTAACTTT	1500

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GATGATTGTC TGAAAAGATG AATTGACCAG AATGCCCGAT TTCATGAATC AAGGTATAGA	1560
CATCGCTCAA ACGGCCTGTC CAGCTCATGA GTACATAAGG GTGTACGCGA TATGGGTCCG	1620
CCGCATAACC ACCGGAATCC TTGCCACTGT TAGCAGCAAA GTCCACCCAG CGCTCTTCTT	1680
GGTAACGAGC AACTTCCTGA CAATATTCTT GCCCCAAAGG TTCTACCGAC TTCATGACCA	1740
AATCATAGGC ATCGTCAATA GTCACCTCAG GATTCAGGGC GCTGTCCAAG TCCAATTTC	1800
AGTCTGCAAA GGTATCTTT TCAAGACCAT TTACCTTGGC AACATGCTTG AGGTATCTCT	1860
GAGCGACTGG TGCAAAGTCC TTCATGATGA GGTCATCTG GCGGTCAAAC ATGACACGGT	1920
CCACTTCTTG TTCAGCTAGA AGATAGTCAA AGACAGAGTC GTATCCCTTC ATATCAGCCA	1980
AGAGTTTTTC AGACTTGACC TGAGCCAGAT AGGCTGCTGC AGCCGTATTT TGGTGCTTAC	2040
GAAGTCCCTC TGAGAAGGAA CGGAAGGATT TCTCACGAAC CTCAGCATCC TCATGGTTTT	2100
GGTAGAAATT CTCATAGGTC ACAAAGCTGT TTTGTAGGT CTTGCCATGG GCTTCAAAGT	2160
CAGCCATTTT AAAATCCCCA GCTCGCATCT TAGTATAAAT GTCCTGCGGA CTGTAGAAAA	2220
CTTCACCGAG ATTTGTCAAG GCCTTCTCCA CATCTGCCCC TAAGTAGTGG GCTTTTTTGA	2280
TTTTAGCCTG ACGAATGGCA GCTGTAAAT GTGGCAATTT ACCCAAACGG TCCAAGACTT	2340
CCTCATCTGC TGCCACCAAG GCATCGTCAA AGAAGGTCAA GGCTACGCTG GCATCTGTTT	2400
CAAAATCCAT CCCAGCTTGG GCAATATTGG CAAATTCGTC ATTGCTATAG TCCGTCGCT	2460
GAGGCATAAA ACCATAGTTG CCAATATGGC TCATCTGAAT GTAGATCTGT TCCAATCCG	2520
CAAAGGCCTT CTCGAAATCC TCAAAAGTGT GAAGATTGCC CTTGTAATCA CGGCTAAACT	2580
GGTTGATGTC TTCGCGAGCT TTCTCGATTG CACGCAAGAA ATCCTCACGG TCTTGGTATA	2640
GGGCTGTTAA GTCCAGAGT TCCTTCTCTG GAAATTCTGA ACGGTGTTTT TGTCCATTT	2700
TCTTCCTCTT ATTTCTCTAA TTCTACTAAA AACTAAGGG CTGATAAAGC GTAAAGCGGT	2760
GCTGTTTCTG CTCGCAAAAT ACGAGGACCT AGGCCTGCCA AAACGGCTCC TTTAGCTTCA	2820
AAACTTTTGA TTTCTGCAGG TGAGAGACCG CCTTCTGGAC CAAAGATAAA GAGCAGTTG	2880
GCTCCTGTTT CAAGACCAGT GACTGCTTGC AGAAGCGCAG CGGCTTCTCC TTCTTTAGCT	2940
GATTCTTCAT AGGCTACTAT GATAGAGTCA AACTGGTCCA GCTGAGCTAG AAAATCTGCT	3000
TTTTTCTCGA AAAGTTTAAT ACTTGGTACA ATATTACGCT TGCTTTGCTC GGCTGCTCCA	3060
AGGGCAATTT TTTCTAGTTT TTCAACTTTT TTACCCAATT TCTTGCCATC CCACTTGGCA	3120
ACTGACCAGT CTGCAGGAAA GGCCAGATT TGGCTAGCCC CCAGTTCGGT TACTTTTTGA	3180
GCGATGAAC TCCGCTTGTG TCCCTTGGGA AATCCAGATG CGATGGTCAC TTGGACTGGT	3240

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AGTTCCACAT TGTCATTTAA TTCTTGGACC AACTCAAAC TACGATTTTC CATATCCAGC	3300
ACGCGCGCCA AGCGCTTGAT GCCATCATCA AAGACTAAGG TAACCTCATC CTCTTCTTTC	3360
AAGCGCATAA CCTGAAACAT ATGCTTACTG GTTTCCTTGT CCTCGATAGT GACAGGAGAG	3420
ATAGCACTGC CTTTACAAA ATACTGCTGC ATGCTAGCCT CCAATCACAC CAGAGATATC	3480
CTTGGTTTTT TAAAGACAC AGGTATTCCA TTCCCTTGA ACCATGTGAG TTTCGAGGAA	3540
AAATCCAGCT GACTCAGCCG ACTGGCGCAC CATGTCCAAC TTGTCTTGA TAATGCCACT	3600
CATGATCAGG TAGCCTTCAT CTTTACCAA GCGATAAGCA TCGTCTATTA GATGAATGAG	3660
GATATCCGCC AAGATATTAG CCACAATCAC ATCTGCCTCA ATTTCCACAC CCTTAAGCAA	3720
ATCTCCAGCC GCTACATGGA TATTTCCAT GCCAGGGTTG AGCTCAATAT TTTCCTGAGC	3780
CACACGAACC GCCACATCAT CCAGGTCATA GCGGAAAATT TCTTTAGCCC CCAGAAGCGA	3840
GCTGGCAATA GAGAGAACCC CTGAACCAGT CCCCACATCT AGCACCGTTT CGCCACCACG	3900
AAGAACCTGT TCCAAGGCAA AAAGGTCAT CTTGGTAGTT GGGTGGGTTC CAGTACCAAA	3960
AGCCATGCCA GGATCCAGCT TGATAATCAT TTCCCCGCA GTCGCCTCAT AGTCTGTCCA	4020
AGAGGGAACG ATGGTCAAAT CATGAGTGAT ACGAGCAGGT TCATAGTATT TCTTCCAGTT	4080
GTCTGCCAG TCTTCTCAG CCAAGGCAGT CGTACCTATT TTTAACTCTC CCAAATCCAT	4140
AAAATCTGTC AATTCTGCTA GACGAGCCTG CAAATCCGCC TCAACCAGT TCACATCCAC	4200
CGTGTACAGG TAGTAGGCTG TCACTACGAT TTCTTCTTGC TGCTCCACCT CTGGGAAAAT	4260
CTCTCCAAAG CGGTCCACAT TTCCACATA GTCCATACTG TCTTCGATTG CGACTCCTTG	4320
CGCTCCACG TCAATCAAGA GATTGGAAC CAACTCCTCT CCCTCACGCT TCACTGTAAC	4380
TTTTAACTCT TGCCATGTTT CCATTATTAA TACCAAGCCC GTAAACACA AAACCAAAAT	4440
AGGAAATTCT CTGAAGACGC TTGTGTCTAA GAGAAGTTTA TCTTTTGGC ACAGTGTTTA	4500
GGGCGGGTTC AGTTTAGAAA TGTAAC TGAACTGAA CCATCCTTTC TAATCACTTA CTTTAAATA	4560
ATCTTTAAT CTCTCTTGCA ACTGAGGCAC AACTTGACTG GAACTAAGAA ATTCCTCAAC	4620
ATTCATCAGC TGATAGCCCT GTCCTTCATC TCCGAAGATG ATATTGTCAA ATTGTTCTTG	4680
TCTTAGCTGA CCAACCATAA AGACCGATTT CTTGCCTTTA AAAATTACGC TAGGATAAAT	4740
CTTGCTCCAA AGCAGACAGT CTTTCATCTAA ATGAATTCCC AGTTCCTCAT AACTTCACG	4800
CCGAGCGCAT TCAAAAGGCG TTTCGTCCCC TTCACGGCCA CCACCTGGCA GTTCCACAT	4860
ATTGGCCCAG GGAATACTTG CCTTATCATC GCGTAAGATA GTCAAAAGCT TATCCCCACA	4920
AAACAAAGCA ATCTTGCAAC CTGTGAAATC AGAAATTTCT AGTTCATCT TCAGTTCCTT	4980
CTAACATTTT CTTTCCAGC TCGGCTAACC AGTTTTCATA ATATCTTTT TCATCCCTCA	5040

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ACATTCGACT ACTATCCATT TTCTGTCTAG CAATCTTGAG AGCCTTACGA GTTCGATCTA	5100
CATCTTTCTT CACCTTTAAT TGATACCAGG CTTGTATCAC TTGAAGATTG GACAGTTTGA	5160
GAGACAGAAA CGATTTGACC TGTCGAATAC TAGCATATTG CTCCGCTTGC TCAAAATCTC	5220
CTTCCAACAA GGCATATGA AGCAGGGATA GTTGGGCAAC TGCTGCATC ATCGGAGTAG	5280
TTGTCCCTCTC AAGTAATGCT TGAAACTGCT GTTTAGCTAC TTCTTCCTTC CCTTCCAAAA	5340
TGGAAACTTC ACCTTGATA CCTAATACAC CATCCGCAA ACTCCCTCGT GCATCCTCAG	5400
GAACGTGCTTG AACAAAGTCT TTCAAATCAT ATTCTTGAGG AGCTAGCAAG GTCTGGGCAG	5460
AATGCTCCTCA TACCAGGTAG GCGTATTTGG TATTTTCAGG GTGTTGTAGT AATTCCTCAA	5520
TTTTTGCTCC ATCGGTGATG TCGACTGGCA AAATGTTATT TAGGAAGAAA GATAAATTAA	5580
GAAAAATCCA AGTCCCTGCA AAATACCAGC TTCTTGTCAA AAATCCAAAC AATATCGCCA	5640
ATAATATCAA GCCGAGATGA ACCATCAAGC CTCCTGAAAG CATCAGGATG ATTCCTTTGAT	5700
CGCTTTCATC CTCTTTTAAA CCAATGTATT GAGCACCAAC ATTTTTCAGA ATGGCTGTTC	5760
TACTAAGATG AAACCTGCCT GACTTTTTGG TCAAAATAAA ATGTCCTAAT CCAAAGCCA	5820
CCAGCCGATA GCCTGTCAAG TAGCCACAAA AAGCATGACC CAGCTCATGA AGAATAAAGA	5880
TTAAATACAT GCTTAGAAGA GCGAAGGCAT AACCAAAAGT AAAGGCTAAA ACTGCGGAAT	5940
ACCCCAACTC TGCAAAATGCG ATTGTTCCAC AAGCAAAAGC TAGCATAATA AAGACACAC	6000
CTAGCACATA AACCAATTA GTCCCAATTT TCTTCATAAC ACCTCCAACC AACTCCTAGT	6060
ATCTTGGATA AGGATAAAAT TCTCCCTTTT CCAAGCCAAT TTTTCCTTCT TCAAAGACTT	6120
CTTGGTTCCA TTCCATGACA AATTCCTCTG CTTCTGGGTC TTCCAAAAG TCCATGAGGA	6180
CATCTAGCCC AACCTCAGCA GTATCTTTAA GGAAAAGCGC AAAATAAGCT AAAAATTCAC	6240
GGGAAAATCC TTTTTTAGGC AGGTAAGGAA TAACAGTCAA ATAGTCTTCC TCATTGACTG	6300
TTGACTTGGC AGGATTGTAG AAAAGGACCG CTTCTCTCAA AAGAATGTCA TCTGATGAAA	6360
CCTCTCCGTC TTCATCCACC ATCTCCACAC CGCAGCATTT TGCGCTTCCA ATAGAAAAC	6420
CACTTCTACC GCATGGTTGC GTTTGTCCCA GCTAATCTCA AAGTCAAAGG GAAAGTTCTT	6480
GTCCAACTCT TCCTCTAAAA TATCTAAAAA TCCGTATGTT GCCATTTTGT CCTCTTTCTA	6540
TGCGACTCTT TAATCGCCCC GATTGCTCGG AAATATGCTA AAATAGATAC TACCATCTTA	6600
CCACAAAATT ATTTTATGTC CTAATTATAC CATATTACCT CATTTAAACC CTTGGTATCA	6660
GTGATTTTCT TAAAAGCTG ATTTCTTCAT TTCTCATAAA AATCAATATA AAAAGCCCTC	6720
GAAAGGGCTA ATAAATCTAT AAAATCAATA GCGAGTAAC TAGCACAAGT GGACGTGCTT	6780

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TTTTATTGAC TATTACCACG ATACCACGCT TAATCTTAGG CTTGAACTTT CTTATCTGCA	6840
ATAGCGTCTG TCAAAGTCTG AGAAAAGTTA AGCCCCATTT CTCGTCCCAA CTTATCTGCC	6900
CATTTTGGTA TGGTCAAAGT CTTTTTAATG GGTTCCTGAC TTCCTAGGTA TTCTGATACA	6960
TCAACAGATA CCATAGAAAT AAAAGATTTA TCAAGGTCAT AGGTTGACAC GAAATCTTCA	7020
TCATCTTTAA AAGGATCATT ATCAATTAAA GACAAGCTAT TGATATCTGA TGGCTGAGGT	7080
AACTCTCCAT CACTCTCTAT CAAATCTGCA ACAGTTATCC CTAGCCACTC CGACCCATA	7140
GCCAAAGCCT CAGAAATCCC CTCTCCTTGT GTAGCTGAGT ATTCAAAATC TGGGAAATGG	7200
ACAAAATAAG TCGCTTCTGT TCCGTCTGTG TCGTCATAAT AAAATAAAGC TGGATACGTA	7260
ACTAACATTT CACTACCTCC ATATCAAAAA GCAGGGACTG AATTTTACAA CCCAGCTTGC	7320
TTTCTTATCC CTCTTTCAGT GTACTTATTC AGCTCACCAT GAAGGATTGT GATAGGTCTT	7380
TCCCTTGCT TTTCCATTTT AATATGGGAG CCTTTACCGC CTCTAGTCTT TATCCAACCA	7440
TGGGCCGTAA GGAGTTTAA CACTCTTTT TGTGTCATAG GCATAGCGCT TTTACCTCCT	7500
GACAACACCA TTATAACACG TGTACACGT ATTGTAAAG AGTGATACTT ATTATCTAT	7560
TATACATAAA AGCCCCTAGA TGTGGTTCTA AGGGAAGCCA ATTTATTCAT ACCTATTTTT	7620
CTAATGAGTA GTAAAACTG CTTCTTTATC GAGCAATTCA TCATCTGTAT AGTCAATTGT	7680
AAAAGTATCT CGATCTAAGA CAGATTGAGG CGGAGTTGAA TGAATCATAG GAACACTGCG	7740
TACTCTATAT TTTTATCTC CAATTTTAC AACTGATAC TCTTCGAAAA TCAAATTCAA	7800
ACCACGTCAA CGTCGCCTTA CCGTACTCAA GTACAGCTG CGGCTAGTTT CCTAGTTTGC	7860
TCTTTGATTT TCATTGAGTA TGATTAACTC TCAAGTCTTC GAAATCAGGA TTTTCAACAG	7920
TTATTACAAG GAGGCGATTT ACTACTTCAA AAACATCAAT TATTCTATTT TTCATATTTT	7980
TTCAACCCAT TATTAGAATG AACTTCTTGG TAAGCAAAAT CAAGTTTAGA TTTAATGTTT	8040
TCGTACAAAT CTAATACTC TTTTGGAGTA TCTTCCCGGA AGAAAAGTTT TCTTTCCCT	8100
GAAATAACTT GATCACTAAG AATCCAATGA CGAATTGTG TTGTAAAAAT CAAAATTTCC	8160
TGACTTGGTA GTTCCATCAT TTCCATTGCT TATCACCTCT CTTTTCATTA TAGTTCATAC	8220
AATGACATTC AGCAATATTA TTTCTCAAGT CAGCACTTCC ACTTCTTTAG GCTCAACTAT	8280
CCTATTTTGA GCTTTAAGGA AAATCAAATC TCTCATGCTG ATACCTCTCC TCATTAAATT	8340
AAATAGTAAA AAAGATTCTA TCTCACTCCC TGATTATTAC AAAACCATTG AAATATCACA	8400
ACTAATAGGC TAGAATGGAC ATAGTAAGAT ATAGTAGATG AGTCATTCTA CTCAAATCCA	8460
CGTTAGAAAG GACTGCTATG CCAGACAATC TCGCCGTTTC CATGCGCCCT GG	8512

(2) INFORMATION FOR SEQ ID NO: 130:

895

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2869 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:

CTCGTTTCAA GGTTGAGTCT CTTGCAAATC TTGTTGCGGT TCTTCCTTTT GCCAAGGCAT	60
CTCTCCCATG GTTGGTGCCA GCCATTGTTG GAATCTTGCT CTCATTGGTT CTACCAAACA	120
AGCAAGAAAG CGATGTTTTT GAAATGGAAT AATCACTTAA ATCACTTTTG TAGCCAAGTC	180
TACAGGAGTG ATTKTCTTTT TTTATCCGAT GATAAATGTG TTATAATAGG TAGCGAAAGA	240
GGTGAAGAAA TGAATCAAAC AGTAGAATAT ATCAAAGAAC TGACAGCCAT TCGGTCGCCA	300
ACAGGCTTTA CTCGTGAGAT TCGGGACTAT TTAGTCAAGA CTCTAGAAGG TTTTGGTTAC	360
CAGCCGGTTC GCACATCCAA GGGCGGTGTC AATGTAATA TTAAAGGTCA AAATGATGAG	420
CAACATCGCT ATGTGACTGC CCATGTAGAT ACGCTTGGTG CTATTGTCCG TGCTGTCAA	480
CCAGACGGCC GTCTCAAAAT GGACCGTATC GGTGGCTTTC CTTGGAACAT GATTGAAGGA	540
GAAACTGTA CCATTCATGT GGCTAGCACA GGTGAAAAG TATCAGGAAC CATCCTCATC	600
CACCAAACTT CTTGCCATGT CTATAAGGAT GCAGGAACTG CAGAACGCAC GCAAGACAAT	660
ATGGAAGTGC GTTTGGACGC CAAAGTAACT AGTGAAAAG AAACCTCGTC TCTTGGCATT	720
GAGGTGCGTG ATTTTATCAG TTTTGACCCA CGAACTGTCG TGACAGAGAC AGGTTTATC	780
AAGTCTCGCC ATTTGGATGA CAAGGTCAGT GCGGCGATTT TGCTCAATCT CCTTCGCATT	840
TATAAGGAAG AGAAGATTGA ATTGCCCGTA ACAACTCATT TTGCTTTTTC AGTCTTTGAA	900
GAAGTGGGAC ACGGTGCAAA CTCTAACATT CTTGCTCAGG TAGTAGAATA TCTGGCTGTG	960
GATATGGGAG CCATGGGAGA TGACCAGCAA ACAGACGAAT ATACAGTGTC TATCTGTGTC	1020
AAGGATGCTT CTGGACCTTA TCACTATGAC TTCCGTCAAC ATTTGGTGGC TTTGGCGAAA	1080
GAGCAAGATA TTCCATTTAA GCTGGATATC TATCCATTTT ATGGTTCCGA CGCTTCAGCG	1140
GCTATGTCTG CAGGGGCAGA AGTCAAACAC GCCCTTCTCG GTGCTGGTAT AGAGTCTAGC	1200
CATTCTATG AGCGTACCCA TATTGACTCG GTGATCGCAA CAGAACGAAT GGTGATGCT	1260
TATCTTAAGA GCACGTTGGT GGACTAATAT GTGCCTTATT TGTCAGAGAA TTGACCTCAT	1320
CAAGAAGGAA GAAAATCCTT ACTTTGTCAA AGAGTTGGAA ACAGGCTATC TTGTGGTTGG	1380
AGACCACCAG TATTTTGAAG GCTATAGTCT CTTTCTAGCC AAGGAGCATG TCAGCGAATT	1440

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GCACCATTTG AAAAAGGAGA CAAGACTCCG TTTTCTAGAA GAAATGAGTT TAGTCCAAGA	1500
GGCAGTTGCC AAGGCCTTTG CTGCTGAGAA AATGAATATC GAACTGCTAG GAAATGGCGA	1560
TGCTCATCTT CATTTGGCATC TGTTCACAG ACGGACAGGT GATATGAATG GTCATGGTCT	1620
CAAGGGTCGT GGACCAGTCT GGTGGGTTCC CTTTGAAGAA ATGACAGCAG AAACCTGCCA	1680
AGCAAAACCG GATGAGATTA AAAGATTAGT CAAACGTTTA TCGTCAGAAG TAGATAAACT	1740
ATTAGAAATA AAGGAGTAGA AATGAAGAAA AGATACCTAG TCTTGACAGC TTTGCTAGCC	1800
TTGAGTCTAG CAGCTTGTTT ACAAGAAAAA ACAAAAAATG AAGATGGAGA AACTAAGACA	1860
GAACAGACAG CCAAAGCTGA TGAACAGTC GGTAGTAAGT CTCAAGGAGC TGCCAGAAG	1920
AAAGCAGAAG TGGTCAATAA AGGTGATTAC TACAGCATTG AAGGGAAATA CGATGAAATC	1980
ATCGTAGCCA ACAAACTA TCCATTGTCT AAAGACTATA ATCCAGGGGA AAATCCAACA	2040
GCCAAGGCAG AGTTGGTCAA ACTCATCAA GCGATGCAAG AGGCAGGTTT CCCTATTAGT	2100
GATCATTACA GTGGTTTTAG AAGTTATGAA ACTCAGACCA AGCTCTATCA AGATTATGTC	2160
AACCAAGATG GAAAGGCAGC AGCTGACCGT TACTCTGCCC GTCCTGGCTA TAGCGAACAC	2220
CAGACAGGCT TGCCCTTTGA TGTGATTGGG ACTGATGGTG ATTTGGTGAC AGAAGAAAAA	2280
GCAGCCCAAT GGCTCTTGA TCATGCAGCT GATTATGGCT TTGTTGTCCG TTATCTCAA	2340
GGCAAGGAAA AGGAAACAGG CTATATGGCT GAAGAATGGC ACCTGCGTTA TGTAGGAAA	2400
GAAGCTAAAG AAATTGCTGC AAGTGGTCTC AGTTTGAAG AATACTATGG CTTTGAAGGC	2460
GGAGACTACG TCGATTAATA CTCTTCGAAA ATCTCTTCAA ACCACGTCAG CGTCGCCTTA	2520
CCTACTGACT GCGTCGGTTC TATTCACAAC CTCAAAACAG TGTTTTGAGT cGATTCGTCA	2580
GTTTTATCTG CAACCTCAA GCTGTACTTT GAGCAstGCG GCTAGCTTCC TAGTTTGCTC	2640
TTTGATTTTC ATTGAGTACA AAAAGTAAAC TTTTCTCTTG CAATTCCAGA TAAATAGTGT	2700
ATAATGGATG GGTATGTGAA AAACATACTT GTGGGAGGTA AAAATCTCTA ATTACCGCCA	2760
AAACCACAAA GGAGGATTTA AAAATGGCTA AAAAAGTCGA AAAACTTGTA AAATTGCAAA	2820
TCCCTGCTGG TAAAGCTACA CCAGCTCCAC CGGTTGGACC TGCTCTTGG	2869

(2) INFORMATION FOR SEQ ID NO: 131:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:

897

CTGAATCCCT TATAGGAGTC CAGTAACTTT TTAGCCTCTA CTTTGCCTTC ATAGGCAGCT	60
TCAACATCAT TAAAAAAGA ArGCACTGAA GCAAGTTCTT CAGTGCTCCA CGACAAATCT	120
AGTGGGTAACT TATACTGTTT GTTCATTAACT TAATACCAGC TCTCATTCTT GCTTCTTTTA	180
GTTCCTTGCTT ACGATAACTA CGAGGGAGAA AAGCACGAAT CTCATCTTCA TTAAACCGA	240
TTTGTCATACG CTTGGCATCA ATAATAATG GACGACGAA AAGACTAGGA TACTGCTCAA	300
TCAAATGAAG CAATTCCGAT ACCGAAATAC TCTCTACATC AATATTCAAT TTTTGAAAAA	360
TTTTTGAACG AGTTGAAATG ATGTCATCAG TACCATTTTC GGTCAAGGAA AGGATGTGTT	420
GCAATTCCTT TCTTGTTAAA GGAAGTGGTCA TAATATTGTG TTCCACAAAG GGAAGTTATG	480
TTTTTCTAAC CAGGCTTAG CTTTACGACA TGATGTACAG CTCGGTGATA GAAATAGTGT	540
AATCATGCTT TTCTCTCTT ATCTATACTT TGCTACTTCT ATTATACAAA AAAATAAAGC	600
GCTTGACTAG GGATTTTTAG AAAAAAGCC TATTTTTTCA AGAAAAATAG GCTTTTTGCG	660
AACGATTGAC ACAATTGGAT TTGGTTAATT CACTCTTAAC GATGGTTTTA AACGATATAT	720
ATTTTTATAT ATGTAAATTA AAAACATCTT TCCTTTCCT TCCTACGACT TTTCAGATAC	780
AGATAGCCAA AGAAGTTTTC ATAGAGGGCA AAAAAGAGGA GGAAGGCATG AAGAAAGAG	840
GTCTCTGGCA AAATCATAAT AACAGGATCC TTGGCTGGAT CAAAAAGCCA GGTATCATCT	900
CCCACAAAGA GAATTGATG GAAAAGAGTA AAGAATTGGT CAAAACCAAT CAAACTCCCC	960
CCAAGTCCAA TCATCACAGG TAAGACTACT AGAGCCAGGA GACTTTTTTCG ATAAAGAGAC	1020
AAAAAGTCCT TTTTACCAAT CCTATTGACA AAGACATAGA AACTTGGCAG TGTCACATAG	1080
GCTACTAGCT GAACCAATG AAAGAGATTC TTGACCACTG CGAAATGGTG CAGACCAGCT	1140
GCTGACGAAC GAAAATCAGG CATCTGTAAG ACCTGACTAA AAGGATTGGT CAGATAATTC	1200
ATCAAGATAT GAAAATTGTA TTGAATGGTT TCTGGTTTTA GATAGACTCG ATTCGTTAAG	1260
TTTAGCCACT GAATCTCCAT AGGATAGAAA ATCCAAGCCA GATAAATGGT CAGAAGGATG	1320
GAGAGGGAGA GGAGAAAGAG CATAGAGCCC CAAAAGATCA ATTTAGTTT CATCAAAATC	1380
CCACTCCGCA AGGCTAGAAA CCACATGTGT CGGTGCGATT GGCAGGCCAG CTACTTCTTC	1440
TGCCTTAGTA AAACCTGTCG TCACCAAGAG CGTTGGAATG CCATTGTCAA TCCCAGCCCG	1500
AATATCAGTC AAATAATTGT CCCCACCAT GATTAATCT TCACGTTCCA AACCTAAGTG	1560
CTCAACCGCC TTGTCCATAA TGATGGCATT TGGTTTTCG ATATAAACCG GCTTCACTCG	1620
TGTCGCTACT TCAAGCAGCG TAATCAGTGA GCCAGCACCT GGCAAAAGAC CGCGTTCCGT	1680
CGGGATGTTG AGGTCAGGAT TGGTTCCGAT AAAATGGGCA CCCTTTTGAA TAGCAAGAGT	1740

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TGCTGTGGCA AATTTTTCAT AGTCGACTTG CCAATCCAGA CCAACTACCA CGTAGGCAGG	1800
TTTTTCCTTG TCTTCCACAT AACCAGCCGC CTTGATGGCT TCCTTGAGTC CTGCTTCTCC	1860
GACGACATAG ACGGTCTTTT CAAGCCCCAA ATCATTTCATA TAGTCGATGG TTGCCAAAGT	1920
CGCTGTGTAG ACAGTCGATA GGGGCGTATC GATATTAAAA TTCTGAGCCA ACATCTCCTT	1980
AACACTCTCT GGAGTGC GGGG TTGTATGTGTT GGTACAAAAG AGATAGGGAA TGTCCCGCTT	2040
TTGCAATTCA TGAACAAAAG TCTCTCCAGC AGGGATTTCGG TCTTTCCCTT TATAAATGGT	2100
TCCGTCATAA TCAATTAAAT AGCCTTTATA TTTCATCTAT TTCTCCCTAA GCCTTTTTTA	2160
TTTCTTGCCA AGTAATGATT GCTTGGGCAT TGATAACCCC ATCACTTGTA ATTTTCATGCT	2220
TGCTTTCCAG TCCAGTCCGT TCAACAGCCG ATGTAATCAC CCCACCTGGT CGAACTTCCT	2280
TGACATACTT GAGGTGATT TTCTTGGGAA TATAGTGGGT CAAAAATCC GCTCCCATGA	2340
CCTCAAAAAT CCAGTCCAAG TATTTACTGT TATTGACATG ACCATTTCATA TCCAAGTCGT	2400
AAAAACGAAC ATGGTAATCC TTGCTGATCG GTTCTTCCAA GGACTCATACT TCGGTCAC	2460
GGATAAGTTT TTTATCAAAA TCAGACTGGT AAGGAGCCAC AATCTCAGGT TCAACAACAT	2520
GGACTTTTCG ACTGTCGCGG TCCATGAGAA CAAAGGTCGC CATCATGTGG ATGAGCTCCT	2580
GCTCCGCTTC ATTATAAATA GTAAAGCGAC GGTAGCAAAA AAGTCGATTG TAGCTCAAGG	2640
CTTCCGTTTC GATGGTAATT TCTTCCGCAA AACGAGGCAA ACGAACCACC TCAATATCAT	2700
ATTCTACGAT AATCCAGACC AGATTATATT CTTCCTCAAAAT GGCCTTATCA CTAACCTCCA	2760
GTTCATCGA CTGCATCCCT GAAACTTGCA GTGACAGCAA AATCACATCT GGAAGTTTGA	2820
TATGACCGTT CATATCAGCC ATATCAAAAAG GAATTTTCAT TTTCATTGA TAAGTTAAGC	2880
CCATGATCCT ACTCCAAAAT AAATCGTTCT GCTACAGTAT CTCCCAAAA GAGACCTCTC	2940
TTTGTATGTC GAACGTGGTC ACCCTCAATC TGCATGAGGC CTTGTTGAAC CAAATCTCTG	3000
ACAATTTCTC CATAAAGTCC AGCAAAAAGAC TGTCCAAAT TTTCCCTCAA TCGCGCCATG	3060
GAAACCCCGG ATTTCTTGCG GAGTCCCAAG AACATTTCTT CTTCATTTG CTCCTTTTGA	3120
CTCAGGTGAT CTTCTGTAAT ACAAGCATTG CCTTCCTCAA CCGCACTGAG ATAATGACGA	3180
ATGGGACCAT GATTTTATA GCGTACTCCA TTGACATAAC CAGATGCCCC TGCACCAATA	3240
CCATAGTATT CAGCATGTGC CCAGTACATG AGATTATGAC GACTTTCAAA ACCGGGTTTG	3300
GAGAAATTAG AAATCTCATA ATGCTCAAAA CCCGCTCGCT CCAGCTCTGC AATGATGTAC	3360
TCAACATCT CCGCTTCTAG TTCCTCCTTA GGCAGAGGCA ATTTCCACG TCGCATCCGG	3420
TTCATAAAGA CCGTATGGTT TTCTAAAATC AAATATACA AACTCATGTG GGAATATCC	3480
AATCCAATGG CTTTAGCCAC ATTTTCCTTT ACTTGCTCCA TGGTCTGACC AGGCAGAGCA	3540

TAAATCAAAT CAATGGAGAT ATTGTCAAAA CCAGCCAGTT TCAGGCGATC GATATTTTCA	3600
TAAATATCCT TCTCCAAATG ACTGCGCCCA ATCTTTTCA ACATCTTATC ATCAAAGGTC	3660
TGGACACCTA GCGAAACACG ATTGACAGCC GAATTTTCA AAACAGCTAT CTTATCCGCA	3720
TCCAAATCGC CTGGATTGGC TTCAATGGTC AACTCTTCCA AGACAGACAA ATCCAAGTTT	3780
TTAGTCAAGC CATTAGTAA CACCTCCAGT TCGGAGCCG ACAGGGCTGT CGTGTTCGA	3840
CCACCGATAT AAAGGGTTGA CAACTTTTCA ATATCATAAG AACGAACTC TTCCAGCAGA	3900
TGCTCTAAAT AGCTGTCGAC TGGCTGATTT TTGATGAAGA CCTTTGAAAA ATCACAATAA	3960
TAACAAATCT GGTACAAAA TGGGATGTGC ACATAGGCTG ACCTTGGTTT TTTCTGCATA	4020
GTAATTATTA TACCACAAAG ACTAGATTCC AGATAAAAA CACCATCCCC AGATACATAG	4080
TCCGTCCGGA GATGGTGATG GTTTATTCTT CTGTTATATC AATCACAATC TCTTCTGAGT	4140
CATCAAGAGC TTCGGCTTTT TCTTGCCATT GCTCCTTGAG ATTATTTAAT TGATTTTGTG	4200
ATGCTTCTGT CGCTTGAAAA GCATAGGATT TAGTTTGAGC AAGTATACTG TCCACAGTGA	4260
TTTCACCTGA CTCACCTGT TCTTTTGTTC TCAGAACAAA ATCTGTAGCC TGCTCCTTAA	4320
CTTCTGTGAG TTTTTCACAG ACTTGCTCCT TGGCATACTC CGGATCTTCT CTCAAATCAT	4380
CTAGAAAATC TTGAGCCTGA CTGCAAACTT GTTTGCCCTT ATCACTTGTT AAAAACAAGG	4440
CAAGAGCTGC ACCTGAAACG GTTCCTAAAA GGATTGAGGA TAATTTACCC ATAAGGATTC	4500
TCCTTTTFTA TTTTGTGAAA AATTACTTG CAAGACGAAG AGCTGACAGA CTTGCACCAAG	4560
TCTTGAGTGT TTTTGAACCA GCTGATGAAG CTTTCTTGCT CAAGACACGC GCATGGTCAT	4620
TGAGGTCTGA AACAGATAGA GATAAATCTG CAACAGCACT GAAGAGTGA TCAATCGTAG	4680
CCACCTTGAC ATTGATATCA TCTGCCAAGA CATTGACCTT AGCCAACAAC TCATTGGTGT	4740
GATGCAAGGT CACATCCACA TCTGAAGTCA AGGTTTAAAT CGTCTTTTCT GTTTCATCGA	4800
TGACACGACC AAGCTTTTGT ACAGTAATGA TCAGATAGAC CAAAAGACA ATCAAAGCTA	4860
GGGCAACAAG AATATATGCA ACTTCTAACA TTTAGTTTTC CTCCTCTGTA ATATAGTAAG	4920
GGGCCTTCTT TCGATTTTGA TAAATAACGA TCATTATACC GAGACCGATA AGGACAACTG	4980
ACAGCCATTG GGACACTCGA AAGCCGAAGA ACATGAGACT ATCTGTTTCG ATACCTTCGA	5040
TAACCATACG ACCGAAACCA TACCAATCA AGTAAAAGGC CGTGATATGA CCTCGTCTGA	5100
GACTCTTCCA TTTCCGTCTA AAAATCAGAA TCAAGGCAAA GCCAAGCAGA TTCCATAGAG	5160
ACTCATAAAG GAAAGTCGGT TGACGGTAGC TCCCCTCAAT ATACATCTGG TCACGGATAA	5220
AGCCAGGTAG ATAATCCAGA TTATCCACTG TTGCACCATA AGCTTCTTGG TTAAAGAAAT	5280

900

TACCCCAACG CCCCAAACTT TGAGCAATCA TAACGCTAGG CGCCGCAATA TCTAGAAAAT	5340
CCCAAGTATT GATGAGTTTA CGGTCAGCAA AGATATAGAG CACAAGAGCC CCAGTTATCA	5400
AACCACCGTA AATGGCCAAA CCACCATTC AAATGGCAAA AATCTCTCCT AAATCTTGAC	5460
TATAGTAATC AAATCGGAAA ATAACATAGT AGAGACGAGC TCCTAAAATA GCCAAGGGAA	5520
AGGCTACTAA GATAAAATCT AAAATATCGT CTGGTATGAT CTTCTTTCTA GGTGCTTCTT	5580
TCATGGTCAA ATAAACCGCA AGAATCAAGC CTGTCACAAT ACATAAGGCA TACCAACGAA	5640
TGGCTAGGGG TCCTAGTTGA ATAGCAATTG GATCAAGCAT TTTGCACCTC ATTTGAGCGG	5700
ATTAGACTTG TCAGTCGTTC GTCGAACAAA CGGTCGCAT CAAAGCCCAT TTCCTTGGCA	5760
CGATAATTCA TGGCAGCTGC CTCAATCACA ACAGAGATAT TACGACCTGT TTTAACTGGA	5820
ATACGAATAC GAGGAATGtA CGCCAGAAAC TTCAAGTTCC TCTGCATTAT TTCCAAGACG	5880
ATCAAAGGTC TTATGCGTAT CGTAATTTTC CAAATAGACA GCAAGCTGAA CCTGTGAAGA	5940
ATCCTTGACA GCACTCGCAC CGTAGAGACT CATAACATCG ATAATACCAA CCCCACGAAT	6000
TTCAATCAAG TGTTTCAAAA TTTCAGCTGG TTCACCCAG AGAGTAATCT CATCCTTGGC	6060
AAAGATATCG ACACGGTCAT CGGCTACCAA ACGGTGACCA CGTTTGACAA GCTCAAGACC	6120
TGTCCTCGTC TTACCAATTC CACTATCTCC CTGAATCAAG ACGCCCATCC CATAAATATC	6180
CATCAA	6186

(2) INFORMATION FOR SEQ ID NO: 132:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9541 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 132:

GAAAATCACA ACCCTTTTGG CAAAATTTT GAGATTATTT TCACAACTT GATTTTCAA	60
AGTATACTCA ATAAAAATTA AAAAAATCCA CTACGTCAAG GCGAGGCTAA TGTGGTTTGA	120
AGAAATTTTC GAAGAGCGTG AATGAGTATC ATCTATAGTA AAATAAAAAA ACTGAACAAT	180
TTGGTTGGGG ACAGCCAAAC CAATTTCTCA CAATGTTTCA GAAACAAGGG TGTGCTATTC	240
CAATTTGAGC CTAATAAAC TGTCATAGAT TGCTGAAACA AAGTCTAGGT AAAAGTCTTC	300
ATAATAAAAA GACCTCCTAT CAAGTGTTCA AAAACTTTGA TAGGAGGTCT TGTTTTGTGA	360
AAATATTTAT CAAATTTTCT ATACAAGTGA GCTGTTAGCC AGGTTCTTTC TATTCTTTCA	420
ATTTCATGA ATGGATTTT TACTAATACT CATAACTGGG AATTTGTCTG TGTAAAAATA	480

901

GCGAGATAGA TGGTATTTAT AAAACACTCA AGACAGCTAG ACTAATATCA TTTAAAACAT	540
TATCTTCTTT TGAGCGACTG TTGGTTACCA ACATAGCTAA ATTTCTTGCA TTTTCAAATT	600
GATAGGGTTC TGATTTAGCA TTCACAACCA CCAAGAGGTG TTCTTTGCCG TGAAC TTCAT	660
AGATAAGGTA GCCGCTATGT TCAATCGCAG AATGCACAAA GACATGATGG TAAATTTTCAT	720
CATAGCTAGA GTAAGAAAAG GCACCAAGTTT TTGTCTTCAA TCGGATGACT TGACGGATAA	780
ACTCAATACT GTCTTGACGC TCATTAATCA AGTTCCAGTT CACTTGGTTC AACTGTGCTG	840
GAGCATTATA GCTATTCATC GCACGCTCTC TATCATCATG GGTCAACTCA CCATTTTCAC	900
CAGTCGCAAC CAGTTTGGTA CGACCAAAAT CTTGACCGAT TTCCATAAAG GCCATCCCCT	960
GCATGAGCAG ATTCATGGCT GTGGCAGTTT CGACCTTGGC CATGATTGTC TCTGAACTTT	1020
GGTCTGGATG AAGGGTTGCC AATAAATCGT GAAGATTGTA ATTGTCATGG GCTTCTACAT	1080
AGTTAAGCAC CTGATTGGA TGTGTATAGC TTCCTAATTC ACGACTTCCT AGGATTGCTT	1140
TAGCTAGAAT TGGCTCTGTC GCAGCACCAC TGACAAAACC TGACTTGATA GCACCATAAA	1200
CTTCTCCCC TTTGACAGCA TCGCGCTGAT TGTCAATAAA GAAACCAATA TTTGGCATCT	1260
GGTAGGCATT GTCCTTCTTG GCCTTATCAT AAGGGGCAAG ACCTGTTCCT ATATCCCATC	1320
CTTCTCCATA GAGGATAATG TTGGAGTCGA TTTTCATCAA GCTTTGACGA ATCATCTGCA	1380
TGGTCTTGAC ATCATGAATC CCCATCAAGT CAAAACGGAA GCCGTCAATA TTATATTCCT	1440
GCACCCAGTA TAGAAGAGAA TCAATCATAT ACTTGCGAAA CATTTCTGTG TCACTGGCTG	1500
TTTCATTTC AACACCCGTT CCATTCTGGA AGGTACCATC TGGATTGATA CGATAATAGT	1560
AATCAGGGAC TGTGTTTGG AATGGTGCAT CAACAACCTGA GAAGGTATGG TTATAGACTA	1620
CATCCATAAT GACTCCAATA CCCGCATCGT GATAAGCTTG AACCATCACC TTCAAATCAC	1680
GAATGACCTG AGCTGGATCA TCTGGATTAG TTGAAAAACT AGTTTCTGGC GCGTTATAGT	1740
TTTGTGGATC ATAACCCAG TTGTAGGTTA CATTTCCATC CTCATCGTAT TCTTTATGAC	1800
GGTCTGCAAT TGGTTGCAAT TGAACATAAT TGTAGCCCAG CTTCTTGATG TAATCAAAAG	1860
CAGTTGACTG GCCGTATTGG TTAACGTTC CAGCCTGAGC AGCACCCAAG AAAGTTCCTC	1920
GAAGATGTTT ATCTACACCC GATGTAGGTG ATTTAGTCAA ATCACGAATG TGCATTTTAC	1980
AGATAACTGC CTTACATGGA TTTTCCAAGC GCCAAGTAGC CTCCGAACCG TGCTTAACCT	2040
CGAAGTTTTC AACTTGCTTT TCTACATGGC TCAGAATAGC TGAACGTTTG CCATCAGGGC	2100
TGGTCGCGAT TGTATAAGGA TCACGTGTCA GTGTTTGGTG ATGAGGGAAT TGGACTTGAT	2160
ACTGATAAGT CTTACCTACC AAATCTTCTT CAACATCCAA ACTCCAGACA CCGATTGTAT	2220

902

TGTCCTTATG ATTATAAGAG TAGCTATTGC CTCTTTTCAT CTCAAAAGTC TTCCAAACGG	2280
GTGCATCATT AGCAGCTGAT TCATAAACGA CAACTTGCAC TTCTGTCGCT GTAGGTGACC	2340
AGAGAGAAAA ATGAGCCTGA TTGTCCTCTA CACGGCAACC CAATTCTCCT TGGTAACCCC	2400
AATGATGATC AAAACTAGCA CTGTTAATGG CCTTATCAAA GGCAAAAGGA TTTTGATTTT	2460
TATAGAAAGG ACTGGCAATA GCAGGATTTT CAGAGTAATA AATCCTATCA TCGCCTTCCA	2520
AAATCCAGAC CTCTGTTAAT AGGGGATAGT GATTAAAACG GATAGAATAT TCTTTACTAG	2580
TTTGACCTGT ATGAACCACA AAATTCAAGC TTTCTATAAC ATGTGAACTT GGGTGTTCAA	2640
AGCTAAATAA AGCTCCAAAA TAATCTTCTT TGTAGGTTAG CAAATCAATT CGTTGATCCT	2700
GACTTTTTAC AAAGGAGCAA GTGTCATATT CTCCATTCTT ACGATGGTAA TGAATGCGCA	2760
TAGGGTAGTT ATACATTTTT TATTTTTCCT TTTTACTTTG TTTCTATTTT ACTAATAAAT	2820
TTTTGTCAAT CTCGTCTCAA TTAACAGACA TAGTCATATT CTCTAAACTC TGTTTTTAAA	2880
CGATCCATTA CAAACTTTCT AGCCATGCCT CATCTCTGAC CTGGATACCA AGTTCTTGTTG	2940
CTTTTTCAG TTTACTTCCA GCGTCTGCAC CTACCACGAC GAGGTCGGTC TTTTGTAGAA	3000
TACTACCTGT CACTTTGGCA CCCAGACTTT CGAGTTTACT TTTAGCTTCT GAGCGCTTGA	3060
GTCGTTCCAA TTTTCCTGTC AATACCACGG TCAAACCTGA CAAGGCCGCA TCCGCTACTA	3120
CCGTCTGTCC TTTATAGTCC AGATTGACCC CAGTTTCTTT CAATTCTCTG AGCAGAATTT	3180
CAGAGCCTTC TGTCGCAAAA TAAGTCTGAA GACTTTTGGC AATCACGCCA CCTAGACTTT	3240
CAATACTAGC CACTTCCTCT GAATCTGCCT GAGACAGATT TTCAATTGAA TGGAAATATT	3300
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TCTCGGCAGA ATTTTCCTTT GATGCTTGA TAGCCTGATA CAGTTTAGCA GCGGACTTTT	3420
CCTTAACTCC CTCTAAAAGG AGGAAATCCT CTTCTTGCAA ACGATAAATA TCCGCCACAT	3480
CCTTGACTAA ATTAGCAGCA AAAAGCTTCT CAACAATAGA TGGACCAAGG CCTGTAATAT	3540
TCATAGCATC ACGAGAAGCA AAGTGAATCA AGCCTTCCAT GATTTGAGCA GGGCAACGCG	3600
GATTGATACA ACGTAGGGCC ACTTCATCTT CAAAGTGCAA CAAGTCAGAG TTACAACCTG	3660
GACAGTTTGT AGGGATATCT AGTTTTTCTT CAGAAACCCG TTTGGACTCT ACCACACGTA	3720
AAACGGCAGG GATGATGTCA CCAGCCTTAT ATACAATGAC CGTATCGTCT TTTTCGGATAT	3780
CTTTTTTCAGC AATATAATCT ACATTGTGCA GGGTCGCACG GCTAACAGTC GTACCGGCAA	3840
GTTGTACTGG TGTTAGATTA GCAGTTGGAG TTACAACACC GGTACGGCCA ACTGTCCAGT	3900
CAACTGATAA GAGTTGAGCT TCTTTTTCTT CGGCAGGGAA CTTGTAGGCT ACTGCCCACT	3960
TTGGAGCCTT AACTGTAAAA CCAAGTTCTT CTTGACTTGC TAGGTCGTTG ACCTTGATTA	4020

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CCACTCCATC AATATCGTAA GGCAGATTTT CCCGTTCCCTG TCCTACTTCT TGGATAAAAT	4080
TCCAGATTTT ATCTATGTTT TCAGCCAAGA TTCGCTTAGG ATTGACCACA AAACCTAGTT	4140
GTTCTAGGTA CTTCAAACCC TTTTCTTGGC TATCACGAGT TGAAGGGCTG GCTTCTTGAT	4200
AGAGAAACGT TGCAAGATTA CGCTTGGCAA CTACTGCTGT ATCCAACTGA CGCAGAGTTC	4260
CTGCTGCCGC ATTACGAGGA TTAGCAAATT CAGGCTCTCC ATTTTCTTGG CGCGCTTGGT	4320
TAACTTGGTC AAAGGAAGCG CGTGGCATGT AACATTCCCC ACGAACTGTG ATATCTAGTT	4380
CTTCTGGCAA AGTCAAAGG ATGTCCTTAA CACGCTTGAG GTTTTCTGTG ATATTTTCAC	4440
CAATTGAACC ATCTCCACGT GTTACCCAG CAACCAAAAT CCCCTTTTCA TAAGTCAGCG	4500
AGATAGATAA GCCATCGATT TTCAGCTCAC AAATATAGGT CGGATGAGCC ACTTCCTTAC	4560
GAACACGCGC ATCAAAGCA TCTAGCTCCT CACATGAAAA AGCATCCTGC AAACATAAA	4620
GAGGATACTG ATGACTGTAT TTTTCAAAC CATCTAAAC CTTGCCACCA ACACGATGAG	4680
TCGGACTGTC TGCTAGCACT TGCTCTGGAT AAGCAGTTT TAACTCGACC AACTCACGGT	4740
AAAGGCGGTC ATACTCACTG TCTGAAACCG AGGGATTATC GCTGGTATAG TACTCAGTCG	4800
CATAGCGATT GAGCAAAGCG ACTAATCAT TCATTCTTTT ATTCATAAGA CCATTTTACC	4860
ATAAAACAAG CCCTCCTCAC AAACGAGAAG GCGGAAAAA ACACCTAGTT TGAAATTATT	4920
TTTGAACTC AAGCAACCTT ATATCAATTT TTCAAATGA GTTCGAACAT ATCCGAGAGC	4980
TAAGAAATAT AAGGCTACAA CTCCAAGTCC AATAATCAAG AAAGAATAAA GATGGACACT	5040
TGGCAAGACT GTCATAAATC CTTTGTCAAT AGGCATAAAT AGAATAGCTA AGGTAAAAAT	5100
TGTACTCAGT ACTCTTCCAA GAAATTCGCT CTCAACCTTG GTTTGTACTT GAGTAAAAAA	5160
GTGAATATTA AAAATCGTCA TAAACAATTC ACAAACTAAA TTTCCAGAAA AGGAAAGAAA	5220
AGTTGGAAGT GGTAAATCCA TCATAAAAC TCCGACACCT GTCAAAGCCA GTAAATCAA	5280
AAGATTATAA ATATTAGCTT TAATTTTACT AGCTAGAAGA GCCCAATGA TGGAACCAAT	5340
AGCCCCATA GTTAAATAC TTGCATAGGC TCCTTCTGAC CCGTAAAGCT GATTGAAAA	5400
GGGAAGTAGA AATTCAAAG CTGCAAAAAA GAAATTAACG CTGGAAGCTA CCAGCAAAAG	5460
GAAGAAAATT TCTTGCTGAT GCCAGATATA GTGTAACCCA TCCTTGATAT CTACAAAAAT	5520
ATCTCTCCCA GTAAAAGCCT TTTTCTCTTG AACTTTTGCT TCCTCTTTTG GAAGGAAAGC	5580
CACTAGAACA AAAGCAATGA AAAAAGTCAG CGAGTCTAGC AGTAGCGTCA TATGGAGACT	5640
TGCAAACTGT AAAACAAGGA AGGAAAGAAC AGGAGAGCTA ACACCTACAA CCTGCAAAAC	5700
CAGCTCTAAG CGAGAATTAT AGATCACAAT CTCATCTTTC TCCACCACTT CAGTTATGAT	5760

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AGCTTTATTG	GCTGTGCGAG	AAAAGGCCAA	AGCAATAGCC	TGCACAATGT	TAGCAACAAT	5820
CAAAGCGCCA	ATCATCCAGC	TATCATTCCT	TATGAAAGAA	ATAGCCAGAC	AAAGAATCCC	5880
ACAAACAAGA	TCTGCCGTCA	TTAAATCTT	ACGACGAGAA	AAACGGTCTG	AAATAACTCC	5940
GCCAAAGGGA	TTGACGAGAA	TAGATGTGAC	GAGCTCAGAA	ATCTGATACA	TTCTTAAAC	6000
TGTCTGTCTT	ATAGTCCCCA	TAGAAGCCAA	CCAGACACTA	TTTCCATAAT	CATAGAGCAT	6060
ATTTCCCAT	TTATTGATAG	CCCCACGGCT	AATCAACTGC	ACTGCATAGC	GATTCATATT	6120
AAAGCTCCTC	TCAAATTTTG	AACTATTGT	ATCAAAACCG	AAAGGAGCTT	TTTATTTT	6180
CCCTTATTG	GGAAAATTAA	CTTTTGACAA	ATTTTTCGTA	GTGTTCTCTGA	TAATAGGCTA	6240
CTTGCTCTGG	AAGACCTAAC	ACATCAAAAA	TATGCATGGC	CTCTTGCATC	TGCTTACAGC	6300
CTTCCTTACA	CTGTCCTTTT	TGATATAAGG	CAAAACCTTT	TAAATAATGG	AAAACATTAC	6360
GCTCATAAAG	CTTAATACCT	TTGTCAATAA	TCTTCTCTGT	ATAAGCCTCA	AAATAGTTGG	6420
CATTATAAAA	AGAAGAATGC	TCTAAACAAT	GCTGGTAACA	ATTGAGGGCC	AAAATCAACA	6480
CTAATCTCTT	ATGGCGACTA	ATCTCTTGGT	AAAATTCCTC	CCTTCCATA	ACTTCTCTAC	6540
CAATCCGAGT	GACATAGTCT	ACATCGTAGA	AACTATAGAG	GTTACCGAAA	AGAATCAACT	6600
CATACATGGT	CCATTCTTCT	GTTTTGAAGA	GATAATCTGC	TACCTTACCC	AAATCATCCT	6660
GCTTCATATC	ATAACTCGCA	TCTCTTTGAC	AAATCAGACC	TTGTAGCAAA	ATCCAGTTCA	6720
GCTCAAAATA	AAGGGGAGTC	GTGGAATCTT	TAGACTTTTC	AAGTTGTTCT	CTTTGAAGCT	6780
TTTGAAAACC	TGCAATATCG	TTTGAATAGT	AAAGTGGGAT	AATCTGTGCC	ATCATAGACA	6840
CATGTTTCATG	ATTATGAAAA	TTCTTGCCT	TATCCATGAA	ATTTTCGATT	GTTACATGAA	6900
TGTTATCCAA	AATCTCAAAG	AAACGGGAGA	CTGCCAGGTC	AGACTCCCCA	AGCTCAAAGC	6960
GAGATAACTG	AGAGGTAGAG	CAGGATTTCG	CTGCTGCTTC	CTTTAAAGAA	TAATTTCCAC	7020
TTGTTGCAAA	TTACGAAAT	ACTTTTCCAA	GATGTTCCAT	CTTTACACCT	GCTCTGATAA	7080
TTCTTCCCAC	TCAAGCATAG	CTTCTTCTCTG	ACGATGGCTG	ATTTTGTCCA	GCTCAGCCTG	7140
TAATTCATG	AGTTTGTGCG	CATCGTTTGT	TTCCAACATT	TGTTTCAGAAA	TGGCTTGGCT	7200
TTGACTTTCT	AGCTCTTCAA	TTTCAGCTTC	TAGACTTTTCG	ATTTGTGCGCA	TGAGTTTGGC	7260
AACTTCTTTT	TGACTTTCTT	TCTGGGCCCTG	ATAGTCATTG	ACTGGACTTG	CTTCCTTTGC	7320
TTGATTGCTA	GTTGAAGCTT	CCTCAGTCTG	ACTCATTTCT	GCTGTTGCTT	TCTTCTCAAC	7380
ATAGTAGTCG	TAATCTCCAA	GGTAGAGAGT	TGAACCATTC	TCAGACAATT	CCAAAACATG	7440
AGTTGCCACA	CGATTGATAA	AGTAACGATC	ATGACTGACA	AACAGCAAGG	TTCCATCAAA	7500
GTCAATCAAG	GCATTTTCTA	GCACTTCCTT	ACTATCAATA	TCCAAGTGGT	TGGTCGGCTC	7560

905

ATCCAGAATC AAAAAGTTAT TGTTCCTCCAT AGACAATTTA GCTAAAAGCA AACGAGCTTT	7620
TTCCGCCACCA GATAGCATGC CGACTGATTT TTTAACATCA TCTCCTGAGA AAAGGAAGGC	7680
TCCAAGACGG TTGCGGATTT CAACTTCTGG TGTCAGTTTG AAATCATTC AGAGTTCATC	7740
CAGCACCCTA TTACTTGCTG TCAGCTTGCT TTGGGTTTGG TCATAGTAAC CAACCTCAAC	7800
ATTAGCGCCA AAGCGCTTTT CTCCCTTGAT AAAAGGAATC TGGTCCACAA TAGACTTGAT	7860
AAAGGTTGAC TTGCCGATAC CATTTGGACC AACGATAGCG ACAGCATTC TCTTACGAAG	7920
ATCTAGGTTA ATCGGTTGTG ACAAGACTTC CCCGTCATAG CCAACAGCTG CATTTTCAAC	7980
AGTCAAAACA ACATTGCCCG ACGTTTTTTC AGACTGGAAG GTCATGTTGG CTGATTTCTT	8040
GCCAGCTTCA GGCTTGTCCT AACGTTCCAT TTTTCCAGT TGTTCACGGC GAGATTGAGC	8100
ACGTTTAGTC GTTGAAGCAC GAACTAGATT GCGATTGACA AAGTCTTCCA GAGCAGCGAT	8160
TTCTTCTGTG TGCTTTTCAT AGTTTTTTGC CTCAGTAACT AGCTTTTGCT CCTTCAATC	8220
GACAAAACGA GAGTAATTC CCACATAGCG ATCCAAGGAA TGCTTGGTCA AATCTAGCGT	8280
AATTGTCGCA ACCTTGTCCT AGAAATAACG GTCGTGGCTG ACGATAATGA GGGCACCCT	8340
ATAGTTTACC AAGTAATCT CTAGCCAGGC GATGGTTTCA ATATCCAAGT GGTTAGTTGG	8400
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CTCAGATAAG CGGTCATAAT CTGACATCAG TTTATCCAAA TCCTCACCAG ACTTTTCACC	8640
CATCTCCAGC TCCATCTGAC GCAGTTGTCT CTCCGTCCGA CGCAAATCAT TAAAGACATG	8700
AAGCATTTCA TCGTAGATGG TATTTTCAGA CTCAAAACGG CTATCTTGGG CTAGGTAAGA	8760
CAGAGAAATA TCTTTTTTCT TATTGATTTT TCCGCTAGTT GGCTCCTCTT CTCCAATAA	8820
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ATAATCGTAA GTCTTTTAGT ACAACTTTTA TAACATAAAA TAACTAAAT TATGTATATT	9060
TTATATTAGA TTACTTCACT ATCTTGTTGG ATTTTCTAAC CAGCTAATCT TGTTCAAAT	9120
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AAATAAGATG AGAACAAATC GATTGGGAAA GTAAAATTAA TTTCTATAAA TGTTTTAGCA	9240
ATTGTTTCGT ACTATTTTAG ATTCAGTCTA CTATATACAA TATTTTCGGA ACATTCAACT	9300

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TTTAACTCT ATTTATTACT AGATTTTCATA ATTAAAAAAC CTACTGACCA AGCTAGAAAG	9360
CTTGATACAA TAGGCTTTTT AAAGACTGAT TATTTAACAG CGTCTTTAAG AGCTTTACCA	9420
GCTTTGAATG CTGGTACTTT AGAAGCTGCA ATTGTCATTT CTTTACCAGT TTGTGGGTTG	9480
CGACCTTTAC GTTCTGCGCG CTCACGAACT TCAAAGTTAC CAAAACCGAT CAATTGAACT	9540
T	9541

(2) INFORMATION FOR SEQ ID NO: 133:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3502 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 133:

TTGACTATCC TATCATGCTT TCTAAGTCT ACTCAAGAAA ATCATTTTCA AGTTTTCACA	60
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GGTTATACTA TCATTGTAAG GAGGAAATCA TGTACCATAT AAAAGAAGCT GCGCAGCTTT	180
CAGGTGTCTC TGCAAGACC CTGCATCACT ATGACAAGAT AGGACTCTTG GTCCCTTAA	240
AGTCGGAAAA CGGCTATCGA ACCTACAGTC AAGAGGATTT GGAACGCTT CAGGTCATTC	300
TTTACTACAA ATATCTAGGC TTTTCTTTAG AGAAAATAGC AGAGCTGTTA AAGGAAGAAA	360
GGACAGATTT ATTGCCCCAT TTGACTAGGC AGTTGGACTA TCTAACTCGC GAAAGGCAAC	420
ATCTGGATAC CTTGATTTC ACCTTGCAAA AAATATTCA AGAACAAAA GGAGAAAGAA	480
AAATGACCAT TGAGGAAAAA TTCACGGGAT TTAGCTATCA AGACAATCAA AAATACCACC	540
AAGAAGCGGT AGAGAAATAT GGTCAAGAAG TCATGGGACA AGCGCTCGAA CGCCAAAAAG	600
GTCACGAAGA CGAGGCTACG GCCGCCCTTA ACCAAGTCTT TCAAACCTTG GCACAAAATC	660
TTCAAGTTGG TTTACCTGCA ACAGCAACCG AAAACCAGGA GCAAGCAGCC AAGCTCTTGC	720
AAGCCATTCG CACTTATGGA TTTGACTGCT CTATTGAGGT ATTCGGTCAT ATCGGTAAAG	780
GTTACGTCTA CAACCCAGAG TTTAAGGAAA ACATTGACAA GTTTGGTTCT GAAACAGCCC	840
AGTACAGTC AGATGCCATT GCGGTTTACG TTCAGACAAA TGCAGAATAA ATAGGCTAGG	900
AATTTCTTAG CCTATTTTT ACTTCAAATC ATAAAGCCAG TCGTCACCGT TTTGTAGTA	960
AAAGAATTCA CTGAGATCTT CTTCTAGAAA CACACGAAGC ATATCAGACA TATCATCGGT	1020
TGCAAGTTTT AGATGAGAAA GATTTTCAAA GTCCTCCAC CAAACTTTCC CTTCTCTGA	1080
AGACTGGAGT TCACCAGTAA AGTGTCTGT CTTGTAAAAA AGGACGACAT AACGATAATC	1140

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CTTGTCGTCA TACCAGTTT	TGATACCACA GAGTTGGGGT	TTGAAAATGA TCAGACCAGT	1200
TTCTTCTTTC ACTTCACGAA	TGACAGCATC GACAAAGGAT	TCGCCACGTT CAACATGACC	1260
ACCAGGAAAA GTAATGCCAG	ACCAGTCGGG ATTAACTCGG	TCTTGGACCA GGACCTTATC	1320
TCCGTTTTTA ATCATACACA	TGTTAACAAA TTCGACTGCC	TCTCTTCTGT TCATTCTTCA	1380
CAACCTTTAA TCTTTAATCA	TAATGCAGAC TTCCCGCCAC	CCAGCCGGTA CAGAGGGCAG	1440
AAGTGATGTT AAAGCCACCC	GTGTGGGCAT TGATATCCAT	AACTTCGCCT GCAAAGTGGA	1500
GGCCAGGTAC CAGCTTACTT	TCAAGGGTTT TAGGATTGAT	TTCTTGAGA CTGACTCCAC	1560
CCTTGGTAAC AAAGGACTTT	GCAAGGGACA TTTTTCAGT	TACAGGAATT TTAAGTTCTT	1620
TAATGGACTG GACAAGTTGT	TCTCGTTCCT TTTCAGTCAG	TTGTTTGACT TTTTCAGGAT	1680
ATCCTTGATC AAAAAATTCG	GCCAAAGCGT CTGGTAACAA	GGTTTTTAAA GCGTTTTTCA	1740
AGGATTTTTTC CCGATTTTCT	TCTAGAAATG TAACCAAGTC	CTTCTCAGAA AGTTGAGGCA	1800
AAACATCGAG TGAGAGAACC	TCCCCACCTT TGACAAAGCT	AGACATGCGT AGGGCAGCAG	1860
GACCTGACAA ACCAAAGTGG	GTAAAGAGTA AATCATGAGT	GATGACATGC TTACCATAAC	1920
TTAGGGTCAC ATCGTCCAGA	GAAATACCTT GTAAGGCTTT	ATGTGGAAAA TCTGTTAATA	1980
AAGGACTTTC AGCAGCCTCA	AGATCGGTGA TGGTATGCTT	AAAATGGCGA GCAATCTCGT	2040
GACCAAAACC AGTCGAACCA	GTCCGACCAT AAGACTTACC	ACCTGTTGTG ACAATGAGTT	2100
TCTCACAAGT GAAGGTTTGA	TCCGCTGACT TAAGGACAAA	CTGGTCATCT ACTTTTTTAA	2160
CAGAAACGAT TTCTATTTGA	GTAGCAACTT GACCACCTAG	TTCCGGTGATT TTCTTTTCCA	2220
AAGCTTCGAT AATAGTCCGA	GACTTGTCAC TGGCTGGAAA	GACGCGTCCG TGGTCTTCGA	2280
CCTTAAGTTT AACACCATT	TCTGTAAAAA AGTTGATGAT	GTCATGATTA TCGAACTGGG	2340
AGAAAACACT GTAAAGAAAG	CGTCCGTTTC CAGGAATTCC	AGCTAGCAGG TTGTCTAAGC	2400
TACCATTGTT GGTACATTG	CAACGTCCCC CACCAGTCCC	AGCTAATTTT TTTCCAAGTT	2460
TCCGATTTTT TTGATGAGG	AGGGTTTTCT GTCCATAAAA	GCTACTGGAA ATCGTAGCCA	2520
TCATACCAGC AGTCCCCCA	CCGATGACAA TAGTATCAAA	ATGTTTCATA GCTCTATTGT	2580
ACCACAAAAA AACAAGAGAT	GATGGTCACC TCTTGTCAG	AATGCAATTA ATCAATTTCA	2640
TAGCCCATCA GCAAACCGCC	CTCTTCTGCA TAGAACTGC	AGAGACCAGA GGTGGTAGA	2700
ATTTTAATAT CCGCTTGTGG	GAAGGTTTCA CGGATTCGCT	CTGAGAGCTG TTGACAACAT	2760
TTTTCGTTAT TCGTTGGGC	CATGACAATA CGGCCACCAG	CATATCCAGC TTTTACTAAC	2820
TCATCATAGG CAGCTTGAAC	TGATTCTTTT GATCCCCTTG	CTTTTGTAG CAATTCGAGA	2880

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GTCCCAGTTT CACTAGCTTT TCCGACCATA CGAATGTTGA GAAGGCCAAC GACCGTACCG	2940
ATAAGCTTGC TCAAACGGCC GTTCTTCACC AAGTTATCGA CTTTGGCTAG GACAAAGAGC	3000
AACTTAGTTT TTTCTTGATA GCGGTGATA GCTTCAACCA CTTCTTCAA AGACAAGCCC	3060
TGGTCAATCA AGTCATTCAA TTTTCTACG AGTAGGTCAA CTTCAACCACC AGCAGATAAA	3120
CTATCAATCA CATGAATCTT AGTGTCAGGA TGGTCTTCCA GATAAATATT CTTTGCTAGT	3180
TGAGCACTAT TGTGACTGCC AGAAAGGGTA CCTGTGATGG TTAGTAGGAA AATGTTTTTG	3240
GCACCTTCAA ATGCTCGCAA ATAGTCATCT GGGCTTGGAC AAGCCGATTT TGAAGCTTCT	3300
GCAGTTGCAT ACATGGTTTC CATCATTTGG TCAATATCGA GACTGGCGTC ATCAACAAAG	3360
ACCTGATCAG CTACTTGAAT GGTAAAGGGG ACACTTACAA AGTTGTGTT AATAGCTGGT	3420
GTGGCAGTT GACGATAATC ACAACCAGAG TCAGCAATAA TCTTCCAAGT CATAGAAATT	3480
CTCCATCTTT GTCAGGAACG AT	3502

(2) INFORMATION FOR SEQ ID NO: 134:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12665 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:

CGATTGATTT TTTAAAGCG TTCGATAGAG AATGAGAAAC GAATCCTTAG CAATGGCGGG	60
AAAGAATTTG GAGTTGAGAA TACAAAACGA TTAACATATGG CTCATATTGT TTTTATCTC	120
TCTTGCTTGG TTGAGGCAAT GGTGCACAAG ACAATTTTGG ATGGCATGGG CATGGTTGGT	180
TTAGTCTTGC TTATTTTTC TATGCTGATG TTGATGTTGG TGATTCACCT GTTGGGAGAT	240
ATTTGGACAG TGAAGCTTAT GCTTGTCAT AATCACAAAT ATGTAGATCA TATCTTGTTC	300
AGGACAGTAA AACACCCTAA TTACTTTTAA AATATTCTTC CTGAGTTGAT TGGCTTGACC	360
TTGTTGAGTC ATGCTTATGT GACTTTTGT TTAGTTTTTC CAGTTTATGC AGTTATTTG	420
TATCGACGAA TAGCTGAAGA GGAAAAGCTA TTACATGAAG TTATAATCCC AAATGGAAGC	480
ATAAAGAGAT AAATACAAAA TTCGATTAT ATACAGTTCA TATTGAAGTG ATATAGTAAG	540
GTTAAAGAAA AAATATAGAA GGAAATAAAC ATGTTTGCAT CAAAAGCGA AAGAAAAGTA	600
CATTATTCAA TTCGTAAATT TAGTGTGGA GTAGCTAGTG TAGTTGTTGC CAGTCTTGT	660
ATGGGAAGTG TGGTTCATGC GACAGAGAAC GAGGGAGCTA CCCAAGTACC CACTTCTCT	720
AATAGGGCAA ATGAAAGTCA GGCAGAACA GGAGAACAAC CTAATAAACT CGATTCAGAA	780

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CGAGATAAGG CAAGGAAAGA GGTGAGGAA TATGTAAAAA AAATAGTGGG TGAGAGCTAT	840
GCAAAATCAA CTAAAAAGCG ACATACAATT ACTGTAGCTC TAGTTAACGA GTTGAACAAC	900
ATTAAGAACG AGTATTTGAA TAAAATAGTT GAATCAACCT CAGAAAGCCA ACTACAGATA	960
CTGATGATGG AGAGTCGATC AAAAGTAGAT GAAGCTGTGT CTAAGTTTGA AAAGGACTCA	1020
TCTTCTTCGT CAAGTTCAGA CTCTTCCACT AAACCGGAAG CTTCAGATAC AGCGAAGCCA	1080
AACAAGCCGA CAGAACCAGG AGAAAAGGTA GCAGAAGCTA AGAAGAAGGT TGAAGAAGCT	1140
GAGAAAAAG CCAAGGATCA AAAAGAAGAA GATCGTCGTA ACTACCCAAC CATTACTTAC	1200
AAAACGCTTG AACTTGAAT TGCTGAGTCC GATGTGGAAG TAAAAAAGC GGAGCTTGAA	1260
CTAGTAAAAG TGAAAGCTAA CGAACCTCGA GACGAGCAAA AAATTAAGCA AGCAGAAGCG	1320
GAAGTTGAGA GTAAACAAGC TGAGGCTACA AGGTAAAAA AAATCAAGAC AGATCGTGAA	1380
GAAGCAGAAG AAGAAGCTAA ACGAAGAGCA GATGCTAAAG AGCAAGGTAA ACCAAAGGGG	1440
CGGGCAAAAC GAGGAGTTCC TGGAGAGCTA GCAACACCTG ATAAAAAGA AAATGATGCG	1500
AAGTCTTCAG ATTCTAGCGT AGGTGAAGAA ACTCTTCCAA GCCCATCCCT GAAACCAGAA	1560
AAAAAGGTAG CAGAAGCTGA GAAGAAGGTT GAAGAAGCTA AGAAAAAGC CGAGGATCAA	1620
AAAGAAGAAG ATCGCCGTAA CTACCCAACC AATACTTACA AAACGCTTGA ACTTGAAATT	1680
GCTGAGTCCG ATGTGGAAGT TAAAAAAGCG GAGCTTGAAC TAGTAAACA CGAAGCTAAG	1740
GAACCTCGAA ACGAGGAAAA AGTTAAGCAA GCAAAGCGG AAGTTGAGAG TAAAAAAGCT	1800
GAGGCTACAA GGTTAGAAAA AATCAAGACA GATCGTAAAA AAGCAGAAGA AGAAGCTAAA	1860
CGAAAAGCAG CAGAAGAAGA TAAAGTTAAA GAAAAACCAG CTGAACAACC ACAACCAGCG	1920
CCGGCTCCAA AAGCAGAAAA ACCAGCTCCA GCTCCAAAAC CAGAGAATCC AGCTGAACAA	1980
CCAAAAGCAG AAAAACCAGC TGATCAACAA GCTGAAGAAG ACTATGCTCG TAGATCAGAA	2040
GAAGAATATA ATCGCTTGAC TCAACAGCAA CCGCCAAAA CTGAAAAACC AGCACAACCA	2100
TCTACTCCAA AAACAGGCTG GAAACAAGAA AACGGTATGT GGTACTTCTA CAATACTGAT	2160
GGTTCAATGG CGACAGGATG GCTCCAAAAC AATGGCTCAT GGTACTACCT CAACAGCAAT	2220
GGCGCTATGG CGACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTATCT AAACGCTAAT	2280
GGTTCAATGG CAACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTACCT AAACGCTAAT	2340
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GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTACCT AAACGCTAAT	2460
GGTGATATGG CGACAGGTTG GGTGAAAGAT GGAGATACCT GGTACTATCT TGAAGCATCA	2520

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GGTGCTATGA AAGCAAGCCA ATGGTTCAAA GTATCAGATA AATGGTACTA TGTCAATGGC	2580
TCAGGTGCCC TTGCAGTCAA CACAACGTGA GATGGCTATG GAGTCAATGC CAATGGTGAA	2640
TGGGTAAACT AAACCTAATA TAACTAGTTA ATACTGACTT CCTGTAAGAA CTCTTTAAAG	2700
TATTCCTTAC AAATACCATA TCCTTTCAGT AGATAATATA CCCTTGTAGG AAGTTTAGAT	2760
TAAAAAATAA CTCTGTAATC TCTAGCCGGA TTTATAGCGC TAGAGACTAC GGAGTTTTTT	2820
TGATGAGGAA AGAATGGCGG CATTCAAGAG GCTCTTTAAG AGAGTTACGG GTTTTAAACT	2880
ATTAAGCCTT CTCCAATTGC AAGAGGGTTT CAATCTCTGC CAGGGTGCTG GCTTGCGAAA	2940
TGGCTCCACG GAGTTTGGCA GCGCCAGATG TTCCACGGAG ATAGTGAGGA GCGAGACCGC	3000
GGAATTCACG AACTGCGACG TTTTCTCCTT TGAGGTTAAT CAATCGTTTC AAGTGTTCGT	3060
AGGCGATCTT CATCTTGTCT TCAAAGGTCA AATCAGGTAG GATTCTCCTT GTTTCAAAGT	3120
AATGGTTGAT TTGGTTGAAG AGGTAAGGAT TTCCCATGGC AGCTCGGCCA ATCATGACTG	3180
CGTCAGCACC AACTTCTTCG ATGCGTTGCT TGGCTTCTTG GACAGTACGG ATATCACCGT	3240
TGGCGATGAA TGGAACTCTG GTTAGAGCTT GGGCAACCTT GTAAAGGGTC TCAAGGTCTG	3300
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TTTTGACAGT AAGTGGGATA TCAAGGACAG ACTGGACCTT GTTGATGATG GAGTAAATCT	3480
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AGCCCATGTT GATATCGACG ATATCGGTCT TGGTGTTC TTGGATGAAT TCTGCTGCGC	3600
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CGATATGAAG CATGTGCAGG GTTTTTCGT TGTGTATTG GATTCCTTG TCAGAGACCA	3720
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TCACGCCAGC CATAGGCGCT AAAACGGTAC GATTGGGAAT CTCAATATTG CCAATCATAA	3840
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GTAGTTTGGC AGAATTGACA AGTGATTCTT GCCCGTGGT CTTCTCTTTT CATTTCTTGT	3960
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TGGAACCGA TTTCTTCTTC AGAAAGACGC TTGTAGGCTT CGTCCCGTA GATAGCCTTG	4080
AGGAGGGCTT CGATATGGTC GTCGCTTTCG AGAAGAGTAG AGATAGCTGG CATTTCTTGG	4140
ATGCGTTTTT CAAAGCGAGC AATCTCTTCT TTCTTGGCTC CTGGCAAGAC TTGAACTAGG	4200
AAACCACCTG CAACCTTGAC CTTGTCTTCC TCGTCCAAA GGACATTGAG GCCGACCGCT	4260
GAAGGCGTTT GTTGGCTTTC AGTAAGGTAA AAGGCAAGGT CTTACCGAT TTCTCCAGAG	4320

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ATGAGGGGAG TTATAGAGTT GTAAGGATTT CCACTACCGT AGTCTGTGAT AACGAGGAAT	4380
TGACCATTTC CAACAAAAGG TCCGACTAGG ACTTCACCAG TCGCAGTCTT TTTGATGTCA	4440
ACACCAGGAT TTTGAACATA GCCTTTGACG TTCCCTTGG TATCAGCGAC GGTGATAATA	4500
GCACCTAGAG AGCTAGATCC CAACACCTTA ACTGTAAGTT TGGTATTTCC TTTTTCATTG	4560
GCTGCGAGAA TCTGGCTAGC GATAAGAGTT CGACCAAGCG CTACAGTTGA GCTAGCTTGG	4620
GTTTGATGTT TTTCTTGAGC AGTGGGACG GTTTCAGTGC TATCAAGGAC AAAAGCACGA	4680
AAGGcTCCGC TTTCTGATAT AGTTTTAATA ATTTTATCCA TAGCTACTAT TTTAGCATAA	4740
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GCATGAAAAA AAAAAGAGAA ACAGATTATT TTAGCATTTG TCAGATTAT GCTATGCTTA	4860
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TGGTCAATTT TCAATACTTT CCTTCTATT ACAAGAGTCT CAGACGACCG TCAAGGCTGT	4980
AATGGAAGAA ACAGGATTTT CAAAAGCAAC CCTAACCAA TATGTCACCC TGCTCAATGA	5040
CAAGGCTTTG GATAGTGGCT TAGAGCTGGC TATTCACCTA GAAGATGAAA ATCTGCGTCT	5100
GTCTATCCGT GCAGCTACCA AGGGGAGAGA TATTCGGAGC TTGTTTTTGG AGAGTGCTGT	5160
TAAATACCAG ATTTTGGTTT ATCTTCTCTA CCACCAACAG TTTTtagccc ATCAGCTGGC	5220
TCAAGAATTG GTGATTAGCG AGGCTACGCT TGGTCGTCAC TTGGCTGGTT TAAATCAGAT	5280
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TCACTATTTT TATTCTGTC TTTTCCGAAA GGTCTGGTCG AGTCAGGAAT GGAAGGTCA	5400
CATGCAGAAA CCAGAGAGAA AACAGGAGAT TGCCAATTTA GAGGAAATCT GCGGTGCAAG	5460
TTTGTCTGCG GGGCAGAAAT TGGACTTGGT TCTCTGGGCT CACATCAGTC AACAACTCT	5520
TCGGGTCAAT GCTTGTcAGT TTCAAGTCAT AGAAGAGAAA ATGCGAGGGT ATTTTGACAA	5580
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ACTAGGAGTT GAGGATGGTG AGATGATGAT ATTCTTCTCT TTTCTCCTAT CTCATCGCAT	5700
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GACGCAATTG ATTCAAGAAA TGAAGAAGGA GGAActATtG GGGGATTATA CAGAGGACCA	5820
TGTcACCTAT GAACTCAGTC AGCTTGTGC TCAAGTCTAT CTCTATAAGG GCTATATTTT	5880
ACAGGATCGC TACAAGTACC AGTTAGAGAA TCGTCATCCA TATTTACTGA TGGAACATGA	5940
TTTTAAAGAG ACAGCAGAGG AGATTTTCA TGCTCTACCT GCTTTTCAAC AGGGGACAGA	6000
TTTAGATAAG AAGATTCTCT GGAATGGCT CCAGTTAATC GAATATATGG CTGAAAACGG	6060

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TGGCCAGCAT ATGCGGATTG GTCTGGATTT GACATCTGGT TTTCTTGTCT TTTCAAGGAT	6120
GGCAGCCATT TTGAAACGGT ATTTGGAATA CAATCGTTTT ATTACCATTG AAGCTTATGA	6180
CCCTAGTCGG CATTATGATT TGCTGGTTAC CAATAACCCG ATTCATAAGA AGGAACAGAC	6240
ACCAGTCTAT TATTTAAAAA ATGACTTGGA TATGGAGGAT TTGGTAGCGA TTCGCCAGTT	6300
ATTATTCACT TAAAAGGCTT GGTTAATCCA GGTCTTTTTT GTGAAATCA CACAATCTCC	6360
TCACATTTTT TAAAAATTA AAAAAAGTTG ATAAACAAGA AAGCGCTTTA TTTTGTATAC	6420
TAGTAAGTGT AAAGAGGAAA CACCTCAAGA TCTTTATCAG GAGGACAGTA CATGTCACAA	6480
GAAAAATACA TCATGGCCAT TGACCAGGGA ACTACAAGTT CTCGTGCCAT CATTTTCAAC	6540
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GGTTGGGTTG AGCACAATGC CAATGAAATT TGGAACTCTG TTCAGTCAGT TATTGCGGGT	6660
GCTTTCATCG AAAGTGGTGT CAAGCCAAAT CAAATCGAGG CAATCGGGAT TACCAACCAA	6720
CGTGAAACAA CGGTTGTCTG GGATAAGAAA ACAGGACTTC CTATCTACAA TGCTATCGTT	6780
TGGCAGTCAC GCCAGACAGC ACCTTTGGCT GAGCAACTAA AAAGCCAAGG TTATGTGGAA	6840
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TATGTCGTTT CAGCCTTTAC AGGTCTAGGC GCTCCATACT GGAACCAAAA TGCTCGTGGT	7560
TCCGTCTTTG GTTTGACTCG TGGAACAAGC AAAGAAGACT TTATCAAGGC GACTTTGCAA	7620
TCTATTGCTT ATCAAGTGCG TGATATCATC GACACCATGC AAGTGGATAC TCAGACCGCC	7680
ATTCAGTAC TGAAGGTGGA TGGTGGTGCA GCCATGAACA ACTTCCTCAT GCAGTTCCAG	7740
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GCGGCCTTCC TAGCAGGTTT GTCAGTAGGG TACTGGAAG ACTTGGACGA GTTGAAACTC	7860

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CACGTGAATT GTCAATTAAA AAAATGCAGG AACGTACCCT GGACCTCTTG ATTATCGGTG	8100
GAGGAATCAC AGGAGCTGGT GTAGCCTTGC AGGCGGCAGC TAGCGGTCTT GAGACTGGTT	8160
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ACCTGTTC AGGTGGAGAA TTGAACCCAG CAAATGTGGA TTCAGAAATC GAAGCCTTTG	9480
CGCAACTTGG AGTATCACGT GGTGTTGATA GCAAGGAAGC TCACTATCTG GCAAATCTTT	9540
ACGGTTCAAA TGCACCGAAA GTCTTTGCAC TTGCTCACAG CTTGGAACAA GCGCCAGGAC	9600

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CAGTTGACTT CCTTCTTCGT CGTACCAATC ACATGCTCTT TATGCGTGAT AGCTTGGATA	9720
GTATCGTTGA GCCAATTTTG GATGAAATGG GACGATTCTA TGACTGGACA GAAGAAGAAA	9780
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AAAATTAAGA AAAAATAAAA GAGGTGGAGG GCAGCATTCC TTGTCGCCCC TCCCTTCTTT	9900
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AAGGTGGTTT GCCTTGGGCT TCCGTTTTGC CTTATATCTT AGCCCAGTTC GCAGGGGCCA	10200
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TGATTAGCGA AATCCTTGA ACTTTTGT TTGGTTGAC AATCTTTGCT TTGGGTCTTT	10380
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TCATGCACAG CATCTTGCCA ATTCCAAACA AGGGAGACGG AGACTGGTCT TACGCTTGGA	10560
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AGTAGAATTT CACAAGTCAC AAGGCACCTT GGAAACTCCC GAGGCGCAAG CAGAAATCGC	11040
CCAAAAACGT GAAGAAATCG AGCAAAGGAG AGCTGAGCTT GAGGGTAAAA AACAAGAGCT	11100
TTTGAACCGC TTGAACAAAT AGAGTTTCGC AAGTATTATG CTTACAAAT ACTTGAGCAA	11160
TTAACTAAAA TATAAACCTT GCCTTTATAT CTAGGCAGGG TTTATATTTT AGAAATTCAC	11220
GTAGGTTGTT ACGGTTTTTA CATACCCAGT ATAGTTTGAG TTTCTATAGT ATTCAGTGAT	11280
AAACTTCCAT TTTCTTTGAG CAACATGGAT ATAAGTACTT GTTATGTAGT ATGGATATGG	11340
GCTTTGTGAA TCCAAGTAAG ACTGATAAGC TTGTATACCA AAATATGCTC CACCAATTAT	11400

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TGCACCCCAT GGACCCCCCA ATAAAGCACC TATCCTACCA ATCATATAAC TGATTCCAGC 11460
 ACCAGTCATG AAGTTAGCGA ATGTGTTAGC TTGTTTATTC CCATGTATTG TGTGACGTA 11520
 ATTCCAAACA TTAGGATCGT ATGATCTAAA AGATATATTT AGGTCGATTT CATTCTTTTG 11580
 ATAAGCCATA TAAATGCCC CATTGATATA GACGCCGTCA GCACGTCGTT CAATAGTGTC 11640
 TACACTTCCA TCTGGATTGA CAACCTCAAG AACTTCATCG CTAAAAATAT TTACTTGCGT 11700
 ATCTCCGAAC CGCACTGATG AGCCATTCTC AAACGTAGCC TCACCAGATA CAACTTTAGA 11760
 GTTGCCGAT AAGCTATCAT CAGCAAAAAC AAACAAGCGA CGGGGAAATG CTAGACATAC 11820
 AGAAAACAGA CATAACTAGC AAACACATGC ATTTAAACAT CTTAGACATA ACGGAAACTC 11880
 CTTTGATTTT TTGATTTTTC TCAACTTTTA TTATACAATA AAACCAAATA AAAAGAAAGC 11940
 GGTAACAATA TGCTTAATGC GAAAATTTT TATATATTTT TATGTTTGAT CGTTATCGAA 12000
 ACTACAGGCT TGTGTGTGTT GAAAGAGGT CTCGAAATGG GTTATTTAGA CACAGAAGCT 12060
 ATTATCCTCG CAGTTTTTTC ATTTGCTTTT TACAACCTAT GTTCATTTCGC TTGGGTCTGC 12120
 TCTACAATAA AAAACAATAA AAAATAAATA GACGTATTTT CAAAAAAAC maAATGCATA 12180
 TTTATATTAG CAAACGACG ATTTAAATCG TCGTTTTTTT GTAGTACGAC GGCATGTGC 12240
 TATATCTGAG GTGTAAGTCC TCAGCCTGAC TATCGTGAGG TAGCAGGGAG AGGAAGGGAT 12300
 AGCGAAATCG TGGCTCTACG AACAGGAACG TGATAGTAAG GCCTATATAC CCGATAAGGA 12360
 GGCTTCAAAC TCTAAAGTCC AAAAAGGTAG TCGTAACCTA TATGTGTAAG TCACGAGAGT 12420
 AATTGAATTC GGACTAAGGT TTGTGTGAAA AAGATAAATC TTTCTAGAGT CTAAAGACTC 12480
 TGCCTCAGAT TTCCTATTTT CACTGTAACC TTTTAACGTC CTCATATCTT GTATAAACGA 12540
 GGAAAGATGT ACGACTTATC CCGTGAGGTT TCATGAGCGT GAAAGCGTAG TAACAACGAA 12600
 TCATGAGAAG TCAGCCGAGC CCATAGTAGT GAGGAAACTT CCGTAATGGA AGTGGAGCGA 12660
 AGGGG 12665

(2) INFORMATION FOR SEQ ID NO: 135:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5305 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 135:

CGCTAATCAC TACAATCATT TTATTGTACT TTTCACCTCT CAAGAAAAGC AAGAAGTATT 60

916

CATTTTAGTT TCATTTAGTA TTATTTTGCA TACCTAAAAT ACAGTAAAAA ATCAGTCATC	120
TTGGTATGCT CCTGCTTTCA CTATTCAACA CGTTTTTGAC TTATACTAGG CTCATTTCCA	180
AAAGCATTAT ATAATAGTGA TATGAAACCA ACTAAACTAA ACAAGAAATA TAAGCAATAA	240
AAATTCGTTT AAAAGATCTT ACTAAAGCTA ATACTAAATA AAAATAAAAG AGTAAACTAG	300
GAAGTTTATT TCAAACAACC TAAAATACTG ATTTTCGGCT GAAGATAATA CTGGAGTGCA	360
AATTAATGGG GTTATAATAA ATAGCTGATA GCTTGTGTTG GTTTTGGATT TTTTAAGAGT	420
AGATGAGTAT TAAAACATA AGGAGGACGA AGGTGGCTAA AAATTTAAAA TTAAAAATTAG	480
CTCGGGTAGA GCGTGATTTA ACACAAGGTC AACTGGCAGA GGCTGTCGGG GTGACACGCC	540
AGACTATTGG TTTAATAGAG GCGGGAAAAT ACAATCCCAG TCTCTCGCTC TGCCAGTCTA	600
TTTGCAGATG TTTAGGGAAT ACCCTAGACC AACTATTTTG GGAGGAAGAA GATGAAAAAT	660
AGATTTTATT ATTCTCAATT ACTAGACGAA AGAGAAGAAC AACTGTTCAA TAAAGCGGGC	720
TCTGAAAGTT TCTATATCTG CATTGCTTTG TCGCTCCTAT CTTATATCAT TTCAGTATTA	780
GCACCAAGCC TTTTAAATTC TAATATGCTG CTAATCGTTA TCATCATAGG GACATTTTAC	840
TTTTTCAATC GTGCCCGTTA TCTGGGAGTG ACCTACTATG GTCGTTTTCA TTTTACGATT	900
TTGGGTGTT TTTTCCTAAC CTTGGCTATT ACGGCTCTTT TGATGTTGCA GAATTATCAA	960
TTCAACATAG AAATTTATCA GCACAATCCT TTGAATTTTA AATACCTGTC TGCTTGGGTC	1020
ATTACTTATA TCATTTACCT TCCGTGGATC TTTATTGGCA ATCTTGGTCT TAAGAGCTAT	1080
GGCGAATGGG CTCAGAAAAA ATTTGAACAA GATATGGATG AATTGGAGAG TGGAGAATAG	1140
CTTGTTACTC TTTTCTCAAT CCAGCTAAAA TGTGATATAA TAGTACTAAT TTATTGGAAT	1200
ACATGAAAGT TCTTGAAAAT TTTCATGGGT TTCTAGCTAA GGAAGTAGGA AAAGTATGTA	1260
TCCAGATGAT AGTTTGACAT TGCACACGGA CTTGTACCAG ATCAACATGA TGCAGGTTTA	1320
CTTTGACCAA GGGATTACAA ATAAGAAGGC GGTCTTTGAG GTGTATTTCC GCCAACAGCC	1380
TTTTAAGAAC GGCTATGCGG TTTTGCAGG TTTAGAAAGA ATTGTGAAC ATCTTGAAGA	1440
CTTGCGTTTT TCAGATAGTG ATATAGCCTA TTTGGAGTCG CTTGGTTATC ATGGGGCGTT	1500
CTTGGAATTAC CTTGCAATT TCAAGTTGGA GTTGACCGTT CGTTCTGCCC AAGAAGGGGA	1560
TTTGGTTTTT GCTAATGAAC CGATTGTGCA GGTGGAAGGA CCTCTAGCCC AATGTCAGTT	1620
GGTCGAAACG GCTCTTTTGA ACATCGTCAA CTACCAGACT TTGGTGGCGA CGAAGGCAGC	1680
TCGTATTTCG TCGGTTATCG AAGATGAACC CTTGATGGAG TTTGGGACAC GTCGGGCTCA	1740
AGAAATGGAT GCGGCCATCT GGGGAACACG CGCAGCTGTG ATTGGTGGCG CCAATGGAAC	1800
CAGCAACGTG CGTGCGGTA AGCTCTTTGA CATTCTGTT TTGGGAACCC ATGCCCATGC	1860

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CTTGGTACAG GTTTATGGCA ATGACTATGA AGCTTTCAAG GCTTACGCTG CGACCCACAA	1920
AAATGTGTGC TTTCTTGTGG ATACCTATGA CACCCTTCGC ATCGGTGTAC CAGCTGCCAT	1980
TCAGGTGGCG CGTGAGCTGG GTGATCAGAT TAACTTTATG GGTGTGCGGA TTGACTCTGG	2040
GGATATTGCC TACATTTCTA AGAAAGTCCG TCAGCAACTG GATGAGGCTG GATTTACAGA	2100
GGCTAAGATT TATGCTTCTA ATGATCTAGA TGAAAATACC ATCCTTAACC TCAAGATGCA	2160
AAAGGCCAAG ATTGATGTCT GGGGTGTGGG TACCAAGCTG ATTACAGCCT ATGACCAGCC	2220
GGCTCTTGGG GCGGTTTACA AGATTGTTGC AATCGAAGAT GAAACTGGTC AGATGCGCAA	2280
TACGATTAAG CTGTCTAATA ATGCTGAAAA AGTTTCTACG CCAGGTAAGA AGCAGGTGTG	2340
GCGCATTACC AGTCGTGAAA AAGGCAAGTC AGAAGGCGAC TATATCACTT ATGATGGTGT	2400
GGATATTAGC GACATGACAG AAATCAAGAT GTTCCATCCG ACCTATACAT ACATCAAGAA	2460
GACGGTTCGT AATTTTGATG CCGTTCCTCT CTGGGTGGAT ATCTTCAAAG AAGGAATATT	2520
AGTTTACAAC TTGCCTAGTT TGACTGACAT TCAGGATTAT GCCCCTAAGG AATTTGACAA	2580
GTGTGCGGAT GAGTATAAGC GTGTGCTCAA TCCGCAGCAC TATCCAGTGG ATTTGGCGCG	2640
TGATGTATGG CAAGATAAGA TGGACTTGAT TGATAAGATG CGCAAGGAAG CCCTTGGTGA	2700
AGGAGAAGAA GAATGAGTTT GCAAGAAACG ATTATCCAAG AGCTGGGTGT CAAACCAAGT	2760
ATTGATGCCC AGGAAGAAAT CCGTCGTTCT ATTGATTTCT TAAAAAGATA TCTGAAAAA	2820
CATCCCTTCC TAAAAACCTT TGTACTAGGG ATTTCTGGGG GACAAGACTC AACCTTGGCA	2880
GGACGTTTGG CGCAATTAGC TATGGAAGAA CTGCGAGCTG AAACGGGAGA CGATAGCTAC	2940
AAATTTATCG CTGTCCGCCT GCCATACGGA GTGCAAGCTG ATGAAGCAGA TGCTCAAAAA	3000
GCCCTAGCCT TCATCCAGCC AGATGTCAGC TTGGTTGTGA ATATCAAGGA ATCAGCTGAT	3060
GCCATGACAG CTGCAGTTGA AGCGACAGGT AGTCCTGTTT CAGACTTCAA CAAGGGGAAT	3120
ATCAAGGCAC GTTGCCGTAT GATTGCTCAG TATGCCCTTG CTGGTTCCCA TAGCGGAGCG	3180
GTCAATTGAA CAGACCACGC CGCGGAAAAAT ATCACAGGTT TCTTTACCAA GTTTGGTGAC	3240
GGCGGTGCGG ATATTCTCCC TCTTTACCGC CTCAATAAAC GCCAAGGAAA ACAGCTCTTG	3300
CAGAAACTTG GCGCAGAGCC AGCCCTTTAT GAAAAATCC CAACGGCAGA CCTAGAAGAA	3360
GATAAACCAG GCCTAGCTGA CGAAGTCGCA CTTGGAGTCA CCTACGCAGA GATTGACGAC	3420
TACCTAGAAG GCAAAACAAT CAGCCCAGAA GCTCAAGCGA CCATTGAAAA CTGGTGGCAC	3480
AAAGGCCAAC ACAAACGCCA CTTACCCATC ACCGTATTTG ATGACTTTTG GGAGTAAAAA	3540
GGTCCGGGGG ACCTTTTATG CTTCTTGCCC TGAAATTAAA AAGCAAGAAA AACCTCCACT	3600

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GGAGGTTTT	AGCCTCTCAT	CTTGAAATAA	GAAAGTGAGA	GAAGGCTGG	GGGATCTTGA	3660
ACCCCGAGTT	TAGAAATAAG	AAAATGAGGC	AGATTGAGTA	ACTCGAAGAG	TTCGATTTC	3720
TCGTCTTACC	CCTGCAACGA	TGACTAGGTT	TGAAAAAGCT	TGCTAGAGCG	CATTTCAAAC	3780
CAGGCAGCAA	CTGCGTCAAG	AAATTAGAAG	ACAACTCGT	TTTCTAGCTG	TTACTGAGTT	3840
GAGCCTTTTT	ACTACGAGTA	TAGAAATAAG	GAAGTGAGGT	AGCATCATGA	AATCTATCGG	3900
TACGCAAATA	TTACAGACAG	AACGTTTGAT	TTTAAGAAGA	TTTGTGGAGA	GTGATGCAGA	3960
AGCCATGTTT	CAAAATTGGG	CTTCATCCGC	TGAGAATCTG	ACCTATGTGA	CCTGGGATCC	4020
CCATCCTGAT	GTGGAATCA	CTCGAACTC	GATTTGCAAT	TGGGTTGCTT	CCTATACTAA	4080
TCTCAACTAT	TATAAATGGG	CCATTTGTCT	AAAAGAAAAC	CCAGAGCAAG	TAATAGGAGA	4140
TATCAGCATT	GTTAAGATAG	ACGAGGCTGA	TTTAAGCTGT	GAAATGGCT	ATGTGTTAGG	4200
CAAGGCTTAC	TGGGGAATG	GTATGATGAC	AGAGACTTTG	AAAGCTATCT	TGGACTTTTG	4260
TTTTACTCAA	GCAGGTTTT	AAAAGGTCAG	AGCACGTTAT	GCCAGTCTCA	ACCCAGCTTC	4320
AGGTCGTGTC	ATGGAAGG	CTGGAATGTC	CTATCTACAA	ACCATGTGTA	ATGGTGTAGA	4380
GAGAAAAGGC	TATCTTGCGG	ATCTTATTTA	TTATGGTATA	AGTAGGGAAG	AATGTTGAAT	4440
TCTATTTTCT	GTTTCTATCG	AAGTCAACTA	TTTATTGTAA	ATATAATAAT	TAGCATTCCA	4500
AGTTTATTTG	AACTTTTAAA	ATAGCATATT	GATTAGTACA	AGACAGATGT	TCTAGTTCCT	4560
TCTTTAATCT	GGTTAGTGT	TAGTTAAAAA	ATCGCTTTAA	GCTTGTAAC	AAGAGGGAGC	4620
TAATCGACTA	GATTCTCCAG	CCGAACAGGI	GGTAATGTAC	TTTTTATAGT	GTAATCCTAG	4680
CTGTGTGTAA	ATTTAAAATA	GAATCCTCTA	TCGAGTTAGG	GAATTAAATT	CAACCAATTT	4740
TATTCATGTT	TTTTCTATCA	AATTATCTAA	TATTTAAAATA	GTCTCATTTCT	GATGAGAAAA	4800
CTATTCCTCA	ATCATTCATA	CCTCTCTCAA	CTAGATGTAA	CTTACAAAAC	CCCTGACCTC	4860
ATGAGCCACT	TTCTTCTCC	TCATGAGGTC	AGTTTACTT	TCTGCTGTTT	CAGTATCGTT	4920
TTTCTCTCGT	AGATTTCCTC	AAAAGGGCAG	ACTCTCTCCT	TGGTGCGTCA	CACGATTTTT	4980
TCATCTCGAC	TGTTCTTTAA	TGCATCATTA	ACGACGCTTT	TCTTCTAGGT	GGTTCATAAG	5040
GAACAGGAAG	ATTCAGGTTG	ACTTTTCTAA	TCCTAGAATA	AAGTGCTGAA	AACAATTCGG	5100
AATAGGCATA	GAGACTAGAC	AATTTGAGGA	GCTGCTTGCG	TCCTGTTCTGA	ACACATTTTC	5160
CCACCACGTG	AAGAAAAAGA	TGGCGGAAGC	GTTTGATTGT	TAAAGTTTGG	AAGTCACCTC	5220
CAGCTAGATG	TTTGAGAAAA	AGATAGAGAT	TGTAGGCGAT	ACAGCTCATC	ATCATACGAA	5280
CTTCGTTTTT	GATTAAGGTT	GAAC				5305

(2) INFORMATION FOR SEQ ID NO: 136:

919

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3964 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 136:

TGGCAGCTCG TCGTCGTAAA GGACGCAAAG TTTTGGCTGC ATAATCCAAA CGAATTCTAT	60
CAAAAATCAG TAGGAACTCG AGTCTACTGA TTTTATTTT TGTA AAAAAG TTCAGTAGAT	120
GCAAAATGGAT TCGGAAGCGA TGTACAGTA GATTGAACT AGAATAGTAC ACCTCTGTTT	180
CTAAAACATT GTTAGAAATC GATTTGACTG TCCTGATCGA TTTGTCCTGT TATTATTTTA	240
TTTACTATA AAGTTGAAGT AGGTGGAGAT GGTACAGCAA CAATCGTCTT TAAAGATGGT	300
TCAGCTATTA CAATTCCAGG AAATCAATTG GTAGCACAAG ATCCAAAAGC ACAAGATAGC	360
ACTAACTGA CTGCTGAAAA ATCAACTGTT AAAGCACCTG CTCAAAGAGT AGATGTAAAA	420
GATATAACTC ATTTAACAGA TGAAGAAAA GTTAAGGTTG CTATTTTACA AGCAAATGGT	480
TCAGCATTAG ACGGAGCGAC AATCAATGTA GCTGGAGATG GTACAGCAAC AATCACATTC	540
CCAGATGGTT CAGTAGTGAC GATTCTAGGA AAAGATACAG TTCAACAATC TGGCAAAGGT	600
GAATCTGTAA CTCAAGAAGC TACACCAGAG TATAAGCTAG AAAATACACC ACCTCGAGAT	660
AAGGGAGGCA ATACTGGAAG CTCAGATGCT AATGCGAATG AAGGCGGTGG TAGCCAGGCG	720
GGTGGATCAG CTCACACAGG TTCACAAAAC TCAGCTCAAT CACAAGCTTC TAAGCAATTA	780
GCTACTGAAA AAGAATCAGC TAAAAATGCC ATTGAAAAAG CAGCCAAGGA CAAGCAGGAT	840
GAAATCAAAG GCGCACCCTT TTCTGATAAA GAAAAAGCAG AACTTTTAGC AAGAGTGGAA	900
GCAGAAAAAC AAGCAGCTCT CAAAGAGATT GAAAATGCGA AAATATGGA AGATGTGAAG	960
GAAGCAGAAA CGATTGGAGT GCAAGCCATT GCCATGGTTA CAGTTCCTAA GAGACCAGTG	1020
GCTCCTAATG CTGCTCCTAA GACAACAAGT GCACCGCAAG CAACTGCAGG AACAATGCAA	1080
GATGTTACCT ACCAGTCACC TGCTGGCAAA CAATTACCTA ACACAGGTTC AGCATCAAGT	1140
GCAGCACTTG CTAGTCTTGG TCTAGTGGTG GCAACAAGTG GTTTTGCTTT GCTAGGAAGA	1200
AAGACTAGAC GTAGAAAATA GAACAGCTAG AAAATTCTAT TCTCTACTTA AAGTTAGATT	1260
ATAAGGGGGA TTTTGAGAAG TCATCAATCC TAGTGATGGG TGAGAAAAGT GAGAACCCAA	1320
GATAATCACA TACTTTAGCT GAATAGGAAT ATTCTATCAA TGTAGCCAAT CTCTTCTGTC	1380
TCTAACTGTG GAATAGGAGA TGGGCAATAT CGGATAGAAA AGATAGCAGA ATAGCTCTCT	1440

920

ATTGAAGAGA GGAGGGGAAA CCGAAAAATT AGGTGCCCCT CCTCTTTT TTTT GGTATAATAG	1500
AAGATAGAAA ACGAGGTTAG AAGAGATGAT TTTTGATACA CATACACACT TGAATGTAGA	1560
AGAATTGCA GGTCTGAGG CAGAAGAAAT TGCCTTGGCT GCTGAGATGG GTGTGACACA	1620
GATGAATATT GTTGTTTTG ATAAACCGAC GATTGAGCAT GCCTTGGAGT TGGTAGATGA	1680
GTATGAGCAG CTCTATGCCA CTATTGGTTG GCATCCTACA GAAGCTGGTA CTTATACAGA	1740
GGAAGTTGAG GCTTACTTGT TGGATAAGTT AAAACATTCC AAGGTTGTGG CTTTAGGTGA	1800
AATTGGCTTA GATTACCATT GGATGACAGC GCCCAAAGAG GTGCAGGAGC AGGTTTTTCG	1860
CCGTCAGATT CAGCTATCTA AGGACTTGA TTTGCCTTTT GTTGTCCTATA CCGTGATGC	1920
GCTGGAAGAT ACCTATGAGA TTATCAAGAG TGAGGGCGTT GGTCCCTCGTG GTGGTATCAT	1980
GCATTCATTT TCAGGGACGC TTGAGTGGGC AGAGAAGTTT GTGGATCTTG GTATGACCAT	2040
TTCTTCTCA GGAGTGGTGA CTTTAAAGAA GGCAACTGAC CTCCAAGAAG CAGCTAAAGA	2100
GTACCTTTG GACAAGATGT TGGTGGAAAC AGATGCGCCT TACTTAGCAC CTGTACCCAA	2160
GCGTGGTCGT GAAATAAAA CAGCCTATAC TCGCTATGTG GTCGACTTTA TCGCTGACTT	2220
GCGTGGTATG ACGACAGAAG AGCTGGCGGT AGCAACGACT GCAAATGCAG AACGAATTTT	2280
TGGACTGGAC AGCAAGTAAT GAAAGAGAAA ATTTCTCAAG TTATCGTGGT TGAAGGGCGT	2340
GATGATACGG TCAATCTCAA ACGTTATTTT GATGTGGAGA CCTATGAGAC TCGAGGTTCT	2400
GCCATCAATG CTCAGGATAT AGAGCGGATT CAGCGCCTGC ACCAACGTCA TGGAGTCATT	2460
GTCTTTACAG ACCCAGATTT TAATGGGGAA CGGATTCGGC GCATGATCAT GATGGTCATT	2520
CCAACAGTTC AGCATGCCTT TCTCAAGCGA GATGAAGCTG TTCCCAAGTC CAAGACCAAG	2580
GGGCGTTCTC TGGGAATTGA GCATGCCAGC TATGAAGACC TGAAAACGGC TCTAGCTCAA	2640
GTGACAGAAC AATTTGAACA TGAGAGTCAG TTTGACATTA GTCGTAGCGA TTTGATTCGC	2700
CTTGTTTTTC TAGCAGGGGC AGACAGCCGT AAGCGTAGAG AATATCTCGG AGAGACTCTC	2760
CGAATCGGCT ATTTCAACGG CAAGCAACTC CTCAAACGCC TAGAGTTGTT TGGGGTTACT	2820
TTGGCAGAAG TGGAAGAAGC TATGAAATCT TATGAGTAGG AAAGATGTAG CCGTTACAAT	2880
TTTTTAAGTT TCACAGTATT TTTGGAAGCA GGTAGAAGAG GAGGCGTCTG ATGTTAATTG	2940
GTCAAAAAAT TAAAGAGATT CGGATAGAAA AAGGAATTAG TCGTCCAGAT TTTTGTGGAG	3000
ATGAGCAAGA ACTGACAGTT CGTCAACTGT CGCGAATTGA AAGTGGAGCT TCGCAACCGA	3060
GTTCGCCCAA GTTAGACTAT ATTGCTCGCC GGCTAGGAGT TCCAGTTTAT AGCCTTATGC	3120
CGGATTTTTT AGCTCTTCTT TCTGCTTATT TAGAATTGAA ATACCAGATT TTACGTGAAC	3180
CAATCTATGG TAAAGAAGAG GAGTACGATA AGAAGGAAGC GTGTTTGGAA GAGATTTATA	3240

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AAACATACTT TGATAATCTT CCTAAAGAAG AACAAATTAGC ATGTGAAGTA TTGCAGGCGT	3300
GTTTGGATAC TTCTAGAAGT AGAAGGCCTG AATATGCAGA GTTAATACTT GAGGAACATA	3360
TGCCTCAGAT TATAGAAAAA GAAGCTTATT CAATAAATGA TATGTTGTTG ATTCGTTTGT	3420
TTTTTTATCA AATGCTCATT AGAAAAGATC TTGCCAAATT TATAAATCAA ATCGAAAAGC	3480
TAATGCTCTT TCTTTTGGA CAGAAGAAGG TAACTCAAT AGAGAATTAC TTTATAATTA	3540
GAGATACTCT TATTTAGGA ATGTGTTGTC TTGAAAAGGT AGGAGTAACT GATTGTTTAA	3600
ATGATTATCT ATCGTGTTTA CAAGAAATTA TGGATAAAAC TCAAGATTAT CAAAAGAAAC	3660
CTCTGTATT TATGTTTTTG TGGAAAGCAAG CATTAAGAGA AGAAAGAGAT TTTAGTTAG	3720
CTGAATCATT TTATCAGTCT TCTAAACAT TTGCGCAGCT AATTGGAGAT GAATTTCTAG	3780
TAAAGAAATT GACAGAGGAA TGGCAAGAGG ATGTCAAAAA ATATTTATAA ACATAGTGAA	3840
TCAGTGACAA AGATGTCCCT GTCCTCGTAT CAAAACAGTT CTAAAGTTCG TCTTTAGGGA	3900
TGTTTTTTTA GATATAAGCT AAAAATGACA CGAAATGGTT AGATTTTAAG GACATTGATG	3960
TCCG	3964

(2) INFORMATION FOR SEQ ID NO: 137:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12666 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 137:

TGAGACCGTT ATTTGTATTA GGGAAATGGG TATCTATTTT TAATGCTGTG GGGATTTTGA	60
TTGTTTCTAT TATTCAAACC AAAAGCTTGT CAGGTATTGG AGCAGGATTG TTTAATCTAT	120
ATAACATTTT ATCTTATATA GGTGATTTAG TTAGTTTCAC TCGATTGATG GCATTAGGAT	180
TATCTGGAGC AAGTATAGCA TCAGCTTTCA ATTTAATTGT TGGTTTGTTT CCGGGAATAT	240
TGGCTAAACT GACAATTGGA TTAGTATTAT TCATCTTTT ACATGCGATC AATATTTTTC	300
TATCGTACT ATCAGGATAT GTTCATGGAG CACGCTGAT ATTTGTTGAA TTTTGTGTA	360
AGTTTATGA GGGTGGAGGA AAACATTTT AACCTTTGAA GGCTTCTGAG AAATATATTA	420
AGGTATTAC AAAGAATTAA TGGAGGATAT ATATAATGGA ACATTTAGCA ACTTATTTT	480
CAACCTATGG AGGAGCTTTC TTCGCTGCAT TGGGAATTGT ATTGGCGGTT GGATTAAGCG	540
GTATGGGGTC TGCTTATGGA GTTGGTAAGG CTGGGCAATC TGCCGCAGCT TTAAGTAAAG	600

922

AACAGCCTGA AAAGTTTGCC TCAGCTTTGA TATTGCAATT ATTGCCCGGA ACACAAGGAT	660
TATATGGTTT TGTTATTGGA ATTTTAATTT GGTTGCAATT AACTCCAGAA CTCCTTTAG	720
AAAAAGGCGT TGCTTATTTT TTTGTAGCTC TTCCAATTGC TATTGTAGGA TACTTTTCAG	780
CTAAGCATCA AGGAAATGTA GCAGTAGCGG GAATGCAAAAT CTTGGCTAAA AGACCAAAG	840
AATTCATGAA GGGAGCAATT TTAGCTGCCA TGGTAGAAAC CTATGCAATT CTGCTTTTG	900
TCGTATCATT CATTTTGACC CTTCGTGTAT AAGAAATAAA TTTGCAATTC AAAGGAGGTG	960
TCTAAATGAG CAATTTAGAA AACTTACGAG AGTCTGTTAT TGAACAAGCT CATGAAAAAG	1020
GGCGTATGAA ATTATTGGAT TCCAAAAAGA AGATTGATGA TGAATTGAA ATGCAAAAGT	1080
CGCTCATTAT AAAGAAAAAA GAAGCTGAAC ATGAACGAAA GTTAAAAGAA TTGCAACAGA	1140
AATATCAAAT AATTTTTCAA CAATTAAAA ATAAGGAACG CCAATCAACG TTAGTATCAA	1200
AACAGAAAAT ATTAAAAGAA CTTTTCAAT CTGCTTTACT AGAAATGGAA TCTTGGAGTG	1260
CAGATAAAGA AATGGAGTTC ATCTATCGAA TTCTGGAACG ATATTCACAA CAAGAGGTCA	1320
TAGTAACCTT TGGGGAACGG ACTTTAGCTA AATTCATTTT GGAACAATTA GAGAAATTGA	1380
AATTCCTCTT TCCAATTAT TTATTTAGTG AACAACCTAT CTCAAATGAA TCAGGCTTAC	1440
TTATTTCAAT AGGTAAAATT GATGATACT ATTTGTATAA AACATTAATT GGATCGATTT	1500
CTAAGGAAGA AAGTTCAAGT ATCGCAAATC AAATTTTAT CAATTAAGGA TGAATTGGT	1560
TAATCCTTCT TAGAAATTTG GAGTATTCCA ATAAAATTAG AAAGGTATTT TATGGATACT	1620
AATCTTTTTT CAAAAATAA TACGACGATT TCGGTAAAAG AAAACGATTT TATTACAGAA	1680
GAAAAATTC AAAAAATTAT ACAATCCAAA GATACGGAGA CATTGGCATT TATCTTAGAA	1740
TCAACTCCCT ATCATTTATC GATTGACATC TTAGAAGATC CTAGTCAGAC AGAGATTTG	1800
CTAATGACAA AATTAGTCAA TGATTATAGA TGGGCCTATG CTGAAAGTCC GTCTGATATA	1860
ATTGTGACTT TATTTGCTTT ACGATATGTT TATCATAATA TCAAAGTTT ATTAATACT	1920
AAGGCGGCAA TTAAGAAAGA TTTTCTAAA TTATTAATTC CAATAGGGAT TTTTGATATA	1980
GAAAGTTTAA AACATTTAGT TTCTTCCTTA CATTCAGATA CACTTCCTGA TTTTATGGT	2040
CGTGAAGTAG AATCAATTTG GAATGAGTAT GAACTTTTA ATAATATTCG TGTACTTGAT	2100
GTCGGAGCTG ATCTAGCATA TTTTAAACAT CTGAACTTT TATCTAATGA GTTAGATGAG	2160
GTACTGTCTC AGGTATTGT CGAAATGATT GACTTTTATA ATATTATTAC TGTAACGCT	2220
GGTTTATCTC AAAATAAGAG TCATGGGGAT ATTTTACAAT TACTTTTCAGA TGAAGGAAGT	2280
ATTTCTGCTA AAGAATTTAT ATACATTGTA GAAAATCAAG AAATATTTGT GTGGTTCAAT	2340
AAAATAAATC CAAGCTTAGA TTCAATCTTT TCAACTTATG AATTGAAGAT GCAGACGCA	2400

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ACAATTCAT CTTCTGAGTT AGAATTTTTA TGTGATTAC TATTGTATAA AACTTTAGAT	2460
CAAGGAAGGT ACAATGTAGA GGGGCCGTTA GTTCTTGCTA GATATTTATT GGGATGTGAG	2520
TTTGAAGTAA AGAATCTCAG AATGATCATA TCAGCTCTTC AAAATACAAT TCCCTTTGAA	2580
TCAATAAAAG AAAGGATACG CCCACATTAT GGAAGCTAAT AAGTATAAAA TTGGCATAAT	2640
TGGTAGCCGT GATATTATTT TACCATTAG CATGATTGGG TTTGATATAT TTCCTGCCTA	2700
CCAAGAACAA GAAGCTATAA ATACACTAAG AAAATTAGCT CAATCTGATT ATGGTGTGAT	2760
TTATATCACT GAAGACATTG CTTCAATGAT ATTAGATACA ATTCGCCATT ATGATTCCCA	2820
AGTTGTGCCCT GCTATTATTT TATTACCGAC TCATAAACAA GGTTTAAATT TAGGATTAAA	2880
ACGTATAGAG GATAATGTAG AGAAAGCAGT AGGACACAAT ATTTTATAAT AATGTACAAA	2940
ATTGTCTGTA ATATTATTCT ATAATTTTGT GACTTAGTAA GGAGAATAAC TTTGACTCAA	3000
GGGAAGATTA TAAAGTATC GGGACCTCTA GTTATTGCAT CAGGTATGCA GGAGGCTAAT	3060
ATTCAAGATA TTTGCCGTGT AGGTAAGCTA GGGTTAATCG GTGAAATTAT TGAAATGAGA	3120
AGAGATCAGG CATCTATCCA AGTCTATGAA GAAACATCTG GTCTTGGTCC GGGAGAACCT	3180
GTTGTTACAA CTGGAGAACC TCTCTCGGTT GAATTAGGGC CAGGATTGAT TTCTCAAATG	3240
TTTGATGGCA TACAACGCCC ATTAGATCGA TTTAAATTGG CTA CTACTATAA TGATTTTCTA	3300
GTTCGTGGGG TAGAAGTTCC AAGTTTGGAT AGAGATATTA AGTGGCATTT TGATTCCACT	3360
ATAGCAATTG GTCAAAAGT GAGTACGGGT GATATTCTTG GAACTGTCAA GGAAACCGAG	3420
GTAGTTAATC ATAAAATTAT GGTTCCTTAT GGAGTATCTG GAGAAGTCGT TTCTATTGCA	3480
TCTGGCGATT TTACAATTGA TGAAGTTGTA TATGAAATAA AAAAATTGGA CGGTAGTTTC	3540
TATAAAGGAA CGCTTATGCA AAAATGGCCT GTCCGCAAGG CGCGTCCGT TTCTAAACGT	3600
TTAATTCCAG AAGAACCATT AATCACAGGT CAACGAGTTA TTGATGCATT CTTTCCAGTA	3660
ACCAAAGGGG GAGCTGCAGC AGTTCCTGGA CCGTTTGGAG CAGGAAAGAC AGTTGTACAA	3720
CACCAAGTAG CTAATTTTGC CAATGTTGAT ATTGTTATTT ATGTCGGTTG TGGAGAACGT	3780
GGAAATGAAA TGACGGATGT ACTGAATGAG TTTCTGAGT TGATTGACCC TAATACCGGA	3840
CAATCAATTA TGCAACGGAC AGTTCTGATT GCTAATACTT CAAATATGCC TGTGCTGCT	3900
CGTGAGGCTT CAATTTATAC AGGAATTACC ATGGCTGAGT ATTTTCGTGA TATGGGCTAC	3960
TCTGTGCCCA TTATGGCTGA TTCAACTTCA CGTTGGGCAG AAGCGCTACG TGAAATGTCA	4020
GGACGTCTAG AAGAAATGCC TGGTGATGAG GGTATCCTG CTTATCTGGG AAGTCGTATC	4080
GCTGAATATT ATGAAAGAGC AGGACGTTCT CAGGTTCTAG GGCTTCCAGA ACGTGAAGGA	4140

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ACGATTACTG CTATTGGAGC TGTATCGCCA CCTGGTGGAG ATATTTTCAGA ACCAGTTACT	4200
CAAAACACTT TACGGATTGT GAAAGTTTTT TGGGGGCTTG ATGCTCCGTT GGCACAGCGA	4260
CGTCATTTTC CTGCAATTAA CTGGCTTACA TCTTATTAC TATATAAAGA CAGTGTGGGC	4320
ACTTATATAG ATGGTAAAGA GAAGACAGAT TGGAAATAGTA AAATAACTCG TGCGATGAAC	4380
TACTTACAAC GGGAACTTAG TTTAGAGGAA ATTGTCGTC TTGTTGGAAT TGATTCTCTG	4440
TCTGATAATG AACGACTAAC GATGAAAATT GCTAAACAAA TTCGAGAAGA TTATTTGCAA	4500
CAGAACGCTT TTGATTCCGT AGATACATTC ACTTCGTTTG CAAAACAAGA AGCAATGCTA	4560
AGTAATATTC TCACTTTTGC TGATCAGGCA AATCATGCTT TAGAGTTGGG TTCTTACTTT	4620
ACAGAGATTA TGGAAGGTAC CGTGGCAGTT CGAGACCGTA TGGCGAGAAG TAAATATGTT	4680
TCAGAAGATA GATTAGATGA AATCAAAATT ATATCAAATG AGATTACACA TCAAATTCAT	4740
TTGATATTAG AAACAGGAGG TCTATAAATG AGTGTATATA AAGAATACAG AACTGCTAGT	4800
GAAGTTGTTG GGCCTCTTAT GATTGTTGAA CAAGTAAATA ATGTGTCTTA CAATGAGTTA	4860
GTTGAAATTC AACTTCATAA TGGAGAAATT CGTCGTGGAC AAGTTTTAGA GATCCACGAA	4920
GATAAAGCAA TGGTTCAGCT TTTTGAAGGA TCTAGTGGA TAAATTTAGA AAAGTCTAAA	4980
ATTCGTTTTG CTGGTCATGC ATTAGAATTG GCTGTATCTG AGGATATGGT TGGTCGTATT	5040
TTTAATGGGA TGGGAAAACC AATTGATGGT GGACCAGATT TAATTCAGG GAAATATTTA	5100
GATATTGATG GTCAAGCTAT TAATCCTGTA TCTAGAGATT ATCCAGATGA ATTTATTACG	5160
ACAGGGATCT CCTCTATTGA TCATTGAAAT ACTCTGTAC GTGGTCAAAA ATTACCAGTA	5220
TTTTTCAAGTT CGGGCTTACC TCATAATGAA TTAGCTGCTC AGATAGCAAG ACAAGCGACT	5280
GTTTTAAATT CTGATGAAAA TTTTGCGGTT GTATTTGCAG CAATGGGTAT TACTTTTGAA	5340
GAAGCTGAGT TTTTATGGA AGAACTCAGA AAAACAGGAG CGATCGATCG TTCGGTTTTA	5400
TTTATGAACT TGGCAAATGA TCCTGCAATT GAGCGTATTG CAACTCCCGG CATTGCTTTA	5460
ACTGCGGCAG AGTATCTAGC TTTTGAAAAA GATATGCACG TTCTAGTTAT CATGACGGAT	5520
ATGACTAACT ATTGTGAAGC GTTACGTGAA GTCTCGGCAG CTCGCCGTGA AGTTCCAGGG	5580
AGACGAGGCT ATCCGGGATA TTTATATACA AATTTATCAA CTCTATACGA AAGGGCTGGT	5640
CGCTTAGTTG GTAAAAAAGG TTCGGTGACA CAGATTCCTA TTTTAACAAT GCCAGAAGAT	5700
GACATAACAC ATCCAATTCC TGATTTAACT GGATACATTA CTGAAGGGCA AATTATTTTG	5760
TCGCATGAGT TGTATAATCA AGGTTATCGT CCACCAATCA ATGTTTACC TTCTCTCTCT	5820
CGATTAAAAG ATAAGGGATC TGGAGAAGGT AAAACTCGTG GAGATCATGC TCCAACATG	5880
AATCAACTGT TTGCAGCCTA TGCCCAAGGG AAAAAGGTTG AAGAGTTAGC AGTAGTATTA	5940

925

GGAGAATCGG	CTTTATCTGA	TGTAGATAAA	TTGTATGTGA	GGTTTACAAA	GCGTTTGGAA	6000
GAAGAGTACA	TAAACCAAGG	ATTTTATAAA	AATCGAAATA	TAGAAGATAC	GTTGAATCTT	6060
GGGTGGGAAT	TACTATCAAT	TCTTCCTAGA	ACAGAGTTAA	AACGTATCAA	AGATGATTTG	6120
CTTGATAAAT	ACTTACCTTT	GGTAGAAGTT	TAATCCGGAA	ATGGAGTGAT	TATCTATGGT	6180
ACGTTTGAAT	GTAAAACCAA	CTCGTATGGA	ATTGAATAAC	TTAAAGGAAC	GTTTGACAAC	6240
AGCTGAACGT	GGACATAAGT	TATTAAAGGA	TAAAAGAGAT	GAATTGATGA	GGCGATTTAT	6300
TTCTTTGATT	CGTGAGAATA	ATCAACTTCG	GAAAGAAGTG	GAAAGTTATC	TAATTGATAA	6360
TCTAAAATCC	TTTGCAGTTG	CTAAATCATT	AAAGAATTCT	CAAATGGTGG	AGGAATTATT	6420
TTCAATTCCA	TCGAAAGAAA	TTGAATTATT	TGTTGAGAAA	GAAAATATCA	TGAGTGTAAC	6480
AGTTCCTAGA	ATGCATATGA	ATATTACTTC	TCAAAATGAG	AACAGTGAAT	ACAGCTATTT	6540
ATCTTCTAAT	AGTGAATGG	ATGATGTATT	TGCTACAATG	AATAGTTTAA	TTTATAAATT	6600
ACTAAGACTG	GCAGAAGTTG	AAAAAACGTG	TCAGTTAATG	GCTGATGAAA	TAGAAAAAAC	6660
ACGTAGACGT	GTAAATGGTT	TAGAATACTC	GATTATTCCA	AACCTGTCGG	AACTATTCCA	6720
TTATATAGAA	TTGAAACTAG	AGGAGGCAGA	AAGAGCCAA	TTAGTTCGTA	TTATGAAAGT	6780
GAAGTAGATC	CTTTATTTAG	ATTATTAATT	AGATGAACAA	ATATCAGCTT	GGATAAGGCT	6840
TTAAGCCTTT	CTAAGCTTTT	TTTATTGACA	CTATCAGGAT	ATCTTTTCCA	AAATTTTGGT	6900
TTGTTAGATA	ATGAAAATGT	TTCTACTAAT	CTAGATTTAG	GATTAGTAAA	TCGTAAATGT	6960
AATTATATAG	AAAGTAAGCG	CGTCATAACA	AGGTATCTAT	CATTCATGGA	GCTCCTCCTG	7020
TATACTATTA	GTAAAGTAAA	ACTATTGGAG	GATATTTTAA	TGCCACAACC	TATTGTTCCCT	7080
GTAGAGATTC	CACAACTCTG	TCGTTTGTAT	TCTAAAAAGA	GAAATGATAT	TCTGCTTAAA	7140
ATTCGTATTG	GCAAGCTTGA	AGTAAGTTTT	TTTCAATCTC	TCAATCTCGA	AATGGTAGAA	7200
CAGCTTTTGG	ATAAGGTGTT	GCTCTATGAC	AATTCATCTA	TCTAGCCTAG	GGGAGGTCTA	7260
TCTCGTGTGT	GGGAAAACTG	ATATGAGACA	AGGAATCGAT	TCACTGGCCT	ATCTGGTTAA	7320
AACCCACTTT	GAATTGGATC	CTTTCTCCGG	TCAAGTCTTT	CTCTTTTGTG	GTGGACGTAA	7380
AGACCGCTTT	AAAGTCCTTT	ACTGGGATGG	TCAAGGATTT	TGGCTACTAT	ATAAACGCTT	7440
TGAGAACGGC	AGATTGATTT	GGCTAAGTAC	AGAAAAGGAT	GTCAAAAGCTC	TCACACCAGA	7500
ACAAGTAGAC	TGGCTTATGA	AGGGCTTTTC	TATCACTCCA	AAAATATAGT	AGATTGAAAC	7560
TAGAATAGTA	CACCTCTGCT	TCTAAAACAT	TGTTAGAAAT	CGATTTTACT	GTCCTGATCG	7620
ATTTGTCCTG	TTCTTATTTT	ATTTTACTAT	AAATCCATCA	GAAAGTCGTG	ATTTCTATTG	7680

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AAATGAGGAC TTCTTTTTTA TACTCATCTG CTTTCAAAAA GCATTCTAGT CCATCTCCGA	7740
TTAACGATGG ACTTTATCAC CTCCTTCTCC AGTCCTTGTA TAACATCTTG GAGTTGATTC	7800
ATGACATCTT CCAAAGTTTA AAAGGCTTTA TTCTTAAATC CACGTTTACG AATCTCTTTC	7860
CACACTTGTT CAATGGGGTT CATCTCTGGT GTGTATGGAG GAATAAATGC AAAGCCAATA	7920
TTAGTCGGAA TCTTTAAGGT ACTTGATTTA TGCCATATAG CATTGTCCAT AACGAGTAAA	7980
AGATAATCAT CTGGATAAGC TTGTGAAATC TCCTATTCCCT AAAGCCCCCTT TAGCGCATAA	8040
CTTTGGCTCA GCTTCTATTA TCGCTCACAC CATCCATCAG AAGTTTAATC TGAAGGTACC	8100
CAATTATCGC CAAGAAGAAG ATTGGGCTAG GATGGGTTTA CCAATCACAC GTAAGGAAAT	8160
CTCTAATTGG CATATCAAGG CGAGTCAATA CTATTGGAG CCCCTTTATA ACCTCTTGCG	8220
AGAGAGACTA TTGACTCAGC CCTTACTTCA TGCGGATGAA ACTTCTTATA GGGTGCTAGA	8280
GAGTGATAGT CAGCTGACTT ACTATTGGAC TTTTTGTCA GGTAAAGCAG AGAAACAAGG	8340
GATTACGCTT TACCACCATG ATCAGTGTG AAGTGGTTCA GTAGTACAAG AATTCCTAGG	8400
AGATTATCTT GGCTATGTGC ATTGTGATAT TTGCGGCAG TAACTTAGGA CTTTAGTCCT	8460
CTAGTTCTGC CTATGCGATA GCAGTCCAAG GTTTAGGAGC AAGGCGACGC TAAGCTTGGT	8520
AAACTTCGAA CCGCTCGTCT GCTTATCGTC AACTGGAAGA AGCTGAACTT GTTGGATGTT	8580
GGGCGCATGT GAGAAGGAAG TTTTTGAAG CGCCCCCCA AGCAAGCGGA TAAATCATCC	8640
TTAGGAGCTA AAGGTTTAGC TTATTGTGAT CAGTTATTTT CCTTGGAAG AGACTGGGAG	8700
GCTTTGCCAG CTGATGAACG ACTACAGAAA CGTCAAGAAC ATCTCCAGCC CTTAATGGAA	8760
GACTTCTTTG CTTAGTGCCG GCGTCAGTCA GTTTTAGCAG GTTCAAACT AGGAAGGGCA	8820
ATTGAATACA GCCTCAAGTA TGAAGAAACC TTAAAGACCA TTTTGAAAGA CGACATCTG	8880
GTCCCTTTCCA ATAATCTAGC TGAACGCGCC ATTAAATCAT TGGTTATGGG ACGGAGTAAA	8940
AGAGTCCAGT GGACTCTTTT AGCCTAAGCT CAGTTTAAAA AAGCGAGGGT GGTATTTTC	9000
TCAAAGTTTT GAAGGAGCTA AAGCAAGAGC TATTATTATG AGTTTGTGG AAACAGCTAA	9060
ACGTCATCAA TTAAATAGCG AGAAATATCT ATCCTATCTT CTAGAATGTC TTCCAAACGA	9120
GGAAACTCTC GTAAACAAAG AGGTTTTAGA GGCTTATTTA CCATGGACTA AAGTTGTACA	9180
AGAAAAGTGC AAATAAGAAA TCTCCAGATT AGGAACTATC CGTGAGTTCT CCAGTCTGGA	9240
GATTTTTCAA TAGACTTCCT GCGAAACAAA ATATGGTATA ATAGTTCTAT GAATGATGAA	9300
GCAAGTAAAC AACTAACCGA TGCACGATTT AAGCGTCTTG TTGGTGTTCA ACGCAGGACT	9360
TTTGAAGAGA TGTTAGCTGT ATTAAAAACA GCTTATCAAC TTAAACACGC AAAAGGTGGA	9420
CGAAAACCTA AATTAAGTCT AGAAGACCTT CTTATGGCCA CTCTTCAATA TGTGCGAGAA	9480

TATCGAACTT ATGAACAAAT TGCGGCTGTT TTTGGTATTC ACGAAAGCAA CTTAATCCGT	9540
CGGAGCCAAT GGGTTGAAGT AACTCTTGTT CAAAGTGGTG TTACGATTTC AAGAACTCCT	9600
CTCAGTTCTG AGGACACGGT AATGATTGAT GCGACGGAAG TAAAAATCAA TCGCCCTAAA	9660
AAAAGAATTA GCGAATTATT CTGGTAAAAA GAAATTTTAC GCTATGAAGG CTCAAGCGAT	9720
TGTCACAAGT CAAGGGAGAA TTGTTTCTTT GGATATCACT GTGAACTATT GTCATGATAT	9780
GAAGTTGTTC AAAATGAGTC GCAGAAATAT CAGACAAGCT GGTAAAATCT TGGCTGACAG	9840
TGGTTATCAA GGGCTCATGA AGATATATCC TCAAGCACAA ACTTCACGTA AATCCAGCAA	9900
ACTCAAACCG CTAACAATTG AAGATAAAGT CTATAACCAT GCGCTATCTA AGGAGAGAAG	9960
CAAGGTTGAG AACATCTTTG CCAAAGTAAA AACGTTTAAA ATGATTTCAA CAACCTATCG	10020
AAATCATCTA AACGCTTCGG ATTACGAATG AATTGATTG CTGGTATTAT CAATCATGAA	10080
CTAGGATTCT AGTTTTGCAG GAAGTCTATT ATCAAAAATA CCATCAAGAT TATATAAGAT	10140
TGATACAGGA AAAGTTTAT TTGATGGTGT AAATATTAAT CAAATAGATA AAAAAATATT	10200
AAGTCAAAAT TTAGGAGTAG TTCCACAGGA TTCATTTTAA TTGAACCGAA GTATTCTTGA	10260
TAATATAACT TTAAGCAGC AAGTTACTTC ACAAAGATA GAGGAAGTTT GTAAAGCAGT	10320
TCAAATCTAT GATGAAATCA TGGCTATGCC GATGAAATTT AATACTATCA TCTCAGAGAT	10380
GGGGTCAAAT ATTTTCAGGTG GGCAAAGGCA ACGGATACCA CTGGCACGTG CATTAATAAA	10440
TAATCCTAGT ATTGTAATTT TAGATGAAGC AACTAGTGCA TTAGACACTA TTAATGAGGA	10500
AAGAATAACA AAGTATATAC AAAGTCAGGG CTGTACTCAA ATAATTGTAG CTCATAGATT	10560
GTCAACGATT AAGGATGCGG ATGTTATTTT TGTAATGAAA GGTGGTAAGA TTGTTGAGTC	10620
AGGAAATCAT AAGTACTTAA TGGATCTTGG TGGAGAGTAC TACAGCTTAT ATACAAAAG	10680
GAAATGAGGT GTAAAGAAAA TGAAGAAAGA AAATGAATAT GTAATTTTAA CAACAGCCTC	10740
ACTAGGGGTG ATGATTGGAA TAGTGTTTGC AATTTTTTAA GATTTTCCAG TTGAATATGG	10800
TATTTCTTTA GGCTTGTTGA ATGGAATAGT ATTGGGTTTCG CTGATTGTTT ACAAAAACAA	10860
TAAGAATTAA GCATAATTTT TTGCTGTAAA CTAAGGAGTA GAGATGGCTA TAGTTGAAAT	10920
TATAAATCTA ACAAAAAGCT TTAAAGATAT TGAAGTTATT CATAACACTT AAATAATAGA	10980
GCAACTACAG TAGTAGCTTA AAAACATGAT TAAATCGCTA TTCTTAGGAG TAGCGGTTTT	11040
TCTTTTGTGTT TAATACTCTT TGAAAATCTC TTCAAACCAC GTCAGCTTTG CTTTACCGTA	11100
CTCAAGTACA GCCTGCGGCT CGCTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATAAAA	11160
AGGGTCAAGT AAGTATAGTA AATTGAAATA AGATATGAAC AAATCGATTA GAAAAGTCAA	11220

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ATTAATTTCT AGAAATATGT TAGAAATTGG TTTGAATTCC GCAATCAATT TGTTCAAGTTT	11280
TTATTTTCATT TCATTTTATT TAATTAGATT TTCCAATTTT TTAATTCAAG CTAAAAATCC	11340
CCAATCGTAG TGATTGAGGA TTGAGTAAAT AAATCTTAAA CAATACCTTG TGCAATCATG	11400
GCATTTGCTA CATTTTCAAA GGCAGCAATG TTAGCTCCTG CAAGGTAGTC TTTATCAAGA	11460
CCGTATGTTT CTGAAGTCGT TTTAGCTGTG TTGAAGATGT TTGTCATGAT GTCTTTGAGA	11520
CGGCCATCAA CTTCTTCACG AGTCCATGAG AGGCGAAGAC TGTTTTGGCT CATTTCAAGA	11580
GCTGAAACGG CTACACCACC AGCGTTGGCA GCTTTTGCAG GTCCGTAGAA GATACCATT	11640
TCTTTGTAAA CTTTGATGGC ATCAAGGTCG CTCGGCATGT TGGCACCTTC AGATACACAG	11700
ATAACGCCTT GAGCAACCAA ACGTTTAGCT GCTTCACCGT TGATTTCGTT TTGAGTGGCA	11760
CATGGAAGAG CAATGTCTATA GTTTCACGCG TAAGTCCATA CAGTACCTTC GTGGTAGGTT	11820
GCAGTTGCTT TTTAGCTGTC ATACTCAGTC AAACGAGCAC GACGTTTTTC TTTAACATCA	11880
ACCAAAAGAT CGAAGTCGAT ACCATTTTCA TCGATGACAT AACCATTGTA GTCAGAAACA	11940
GAAATAACAG TTGCACCGAG TTCAGTTGCT TTTTGAAGAG CATATTGAGC AACGTTACCA	12000
GAACCTGAAA TAACGACTTT CTTACCAGCA AAGCTGTTAC CGTTAGCTTT GAGCATTTCT	12060
TCAGTATAGT AAACCAAACC GTAACCAAGT GCTTCTGGAC GAATCAAGCT ACCACCAAAT	12120
CCAAGAGGTT TACCAGTCAA GACACCAGCA TCAAATTGGT TAAGACGTTT GTATTGACCG	12180
TAAAGGTAAC CAATTTACG TCCACCAACA CCGATATCAC CAGCAGGTAC GTCAAGTGAT	12240
GGTCCGATGT GTTTTGTCAA TTCAGTCATG AAGCTTTGGC AGAAGCGCAT CACTTCAGCA	12300
TCTGTTTTAC CTTTAGGATC GAAGTCTGAT CCACCTTTAC CTCCACCGAT AGGAAGTCCA	12360
GTCAAGACAT TTTTAAAGAT TTGTTCAAAT CCGAGGAATT TCAAGATCCC TTGGTTTACA	12420
GTTGGGTGGA AACGAAGTCC ACCTTTGTAT GGTCCAACAG CTGAGTTGAA TTGAACACGG	12480
TAACCACGGT TTAATTGAAT TTTTCCATCA CGGTCAACCC AAGGAACACG GAAAGAAACC	12540
ACGCGCTCAG GCTCAGTAAT ACGTGCCAAG ATATTTTCTT CGATATACTC AGGGTGTTTT	12600
TCAAATACAG GTTCTAAAGT GTTGAAAAAT TCTTCAACAG CTTGGAGGAA TTCAGCCTCG	12660
TGCCGG	12666

(2) INFORMATION FOR SEQ ID NO: 138:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3083 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 138:

AGCAACTGTT GTGAACCAAT TCCGATAAAT TCCAAGAATT GGTAAATAGA GCCATTTTGA	60
CCAAAAATCC CGATAAAAGC ATAGGCTTTA AGGAGCAAAT TGATCCAGGT AGGAAGGATA	120
ATCAGCATGA GCCAGAGTTG ACGGTGTTTG AGACGGGTCA AAAAGAGGGC CGTCGGATAA	180
CTGATAAGCA GTGCCACAAA GGTCACAATG CCTGCATAAA GCACTGAGTT GAAACTCATT	240
TTAAGATAGG TCAAGTTTGG TGACGCAAAG TAAGATTGTG AATTTTCTAA ACTGAACTGG	300
CCTTCGATGT TGAAAAAGGA TTGACCGAAA ATCAAGACCA AGGGTGCCAA TACAAAGAGC	360
GCAATCCAAA GCATGTAGGG TACTACAAAG AGTTTAGAGC TTGTTTTCTT CATCTCTTTC	420
CTCCTCGATT GCATTGATCA AACCTGCTTC TTGCTCTTCG ATTTCTACGT ACTCCTCAAT	480
ACGAGCATCG AACTCTTCTT CGGTTTCATT GAGACGCATG ATGTGGATGT CTTCTGGTTC	540
AAAGTCCAGA CCGATTTCCT CACCCACGAT AGCCTTACGG GTTGAGTGGA TCATCCATTC	600
ATTTCCAAGT TCGTCATAGG CGATAATTC ATAATGAACT CCACGGAAAA GCTGGGTATC	660
GACCTTAACT TGGAGCTTGC CTTCTTCAGG AAGGGTAATG CGCAAGTCCT CTGGACGAAT	720
AACGACCTCA ACAGGTTTCT TTGGCTTCAT CCCACCATCA ACCGCTTCAA AGCGTTTGCC	780
GTAAATTCG ACCAAGTAGT CCTCAATCAT GGTACCTGGC AAGATGTTTG ACTCCCCGAT	840
AAAGGTGGCA ACAAAGTGGT TGATTGGCTC ATCGTAGATG TCCACAGGGG TTCCAGACTC	900
GACAATCTCG CCATCATTC AAGCAAAAT CCAGTCACTC ATGGCAAGAG CTTCTTCCTG	960
ATCGTGAGTG ACAAAGACAA AGGTAATGCC CAATCGTTGT TGTAAATCAC GCAATTCGTA	1020
CTGCATGTCT GTTCTCAATT TCAAGTCCAG CGCTGATAAA GGCTCGTCCA ACAAGACCAC	1080
ACGGGGTTGG TTGATGATAG CACGGGCGAT GGCCACACGC TGACGTTGTC CTCCAGAAAG	1140
TTTGCGGATG GAACGTTTTT CATAACCTTC CAACTGAACC ATCTTGAGAA CTCCGCTAC	1200
ACGCTGCTCG ATTTCTTTCT TATCAATTTT ACGCAAGCGA AGTGGAAAGG CAACATTTTC	1260
AAACACATTC ATATGTGGGA ACAAGGCATA GGATTGGAAG ACGGTATGTA CGTCGCGCTT	1320
GTGTTGTTGA ATATCATTGA TACGAACACC GTCTAGCATG ATATCTCCTG TCGTCGCATC	1380
CAGTAAACCT GCAATAATGT TTAGGATAGT TGATTTCCCC GAACCAGATG CACCTAGAAG	1440
GGTGTAGAAT TTCCCTTCTT CCAACTCAAA GTTGATGTCT TTGAGAACCT TGGTGTGCT	1500
GTCTTCAAAA ACTTTAGAGA CGTTTTTGAA TTCGATAATT GGCTTTTTC AATTGGCATAA	1560
ATTCCTTCTT TTTCATAGAT TAACCGATCG GGGCTCTGTC AGGTCCCCAC TACCTCTTGC	1620
AGGGAGTAAA ACCACCTGCA TACATCTTCG CTACCGATAG GCTTTCACCC AAGATCCGGA	1680

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CTTCTCTTTC AAGCGTAATA CCTGAGTGTT CCTTGACTTT TTCGATAACC GATTGGATCA	1740
AGTCCTCGTA GTCTTTGGCC GTTCCATCTG CGACATTGAT CATAAATCCT GCATGCTTTT	1800
CTGACACTTC TACGCCACCG ATACGATAGC CTTTCAAGCC AGCTTCTGAA ATTAAGTGAC	1860
CTGCAAAATG CCCGACTGGA CGCTTAAAGA CCGAGCCACA AGATGGGTAT TCCAAAGGTT	1920
GCTTGAGTTC ACGTAGGTGC GTCAAGCGGT CCATTTCCTG CTTGATAACC TGATGGGTTC	1980
CTGGAGCTAG GGCAATTTA ACTGACAAGA CAACTGCACC AGACTCCTGA ATAGCTGAAT	2040
GACGGTAACC AAAAGCCAAG TCTTTAGCAG ACAGGGTTTC GATTTCTCCA TCCTTGGTCA	2100
AGACCTTACA AGACTGCAAG ATGTGAGCAA TCTCGCCACC ATAGGCCACC GCATTCTATA	2160
AGACAGCACC GCCAACGCTT CCTGGAATAC CACAAGCAA CTCAAAGCCA GTTAACTAT	2220
GACGGAGGGC AATGCGAGTT GTTCAATCA AGTTAGCCCC AGCTTCTGCT TCAATGGTAT	2280
AGCCATCAAC AGAAACGTTA TTGAGCTTGT CACACAAGAT GACAAATCCA CGAATCCCAC	2340
CATCACGAAC GATGATATTG CTTGCATTGC CAAGAACCAT CCAAGGGATA TTTTCTTGGT	2400
TGGCAAAATT CACAACGCGA GCCAACTCAA AACGATTTCG TGGAAAGACC AAATAATCAG	2460
CCTCTCCACC TACTTTTGTA TAACTATAGC TATGCAAGGG TTCCTTAAAA CGGATATCAA	2520
TTCTTCTTAA GATTTCAAGC ATTTTTTCTC TTACAGACAT GTCACTCTTC CTTTACAAA	2580
ATTCAATCCA TTATACCATT TTTAGAGACA TTTGACGACC ATAAAAATAC CTTGTTTGGA	2640
TTTTGCATAA GAAAAAGAGG TTCCCCCCTT TTTATGATT TTTACAAAAG ATTTCTTGG	2700
TTCCATAGGC GACCAGAACG AGCTCCAGTG CTAGAATCAC TTCAACCAAG ACTGGATTTG	2760
TCAACCAACC TACTTGGAAG AGAGATGGTG CCAGATCAAA GAAGGCATGC AAGCCATAGG	2820
CTGCTAGGAG ATAAATCCAT TTCTTCTGGC GAACAGCTTG GTAAACCCAA ACTGTCAAAA	2880
GTAATTGGAA ACCAAGCGCC AAGATTGCT CAAAACCAAG CAAATAAATC TGCCAGACCG	2940
AAAGTGACTG AATGGTTTTT AACATATTTT CAGACAGTAA TTGCATAACC TGTGGATTCT	3000
GAGTTTGAAC TGCCGAAAGA ACAATGTAAA GATTGAGTAA ACTAGTAAGG CCTAGAAAAA	3060
TCAACTCCAA GCCACCATGC CCC	3083

(2) INFORMATION FOR SEQ ID NO: 139:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15363 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 139:

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CCGGAGGATA TTGACCACCA CCAAAAGCAG GGGGAAAATC GAAATCAACC AATAGTAGGC	60
TACTGCGACA CTGGTCAACT CACTATCTGA TGCTTGATAA TAATGCAAAA AAGCTTTTAA	120
TAAAGGTTTG TCTATCAGCT CTTTCCACCA CTTTTCATG TCATACTCCT TCACTTATAA	180
TCTTATACTC AATGAAAATC AAAGAGCAAA CTAGAAAGCT AGCCGCAAGC TGCTCAAAAC	240
ACTGTTTTGA GGTGTAGAT AAGACTGACG AAGTCGATCA CATACATACG GTAAGGCGAC	300
GCTGACGTGG TTTGAAGAGA TTTTCGAAGA GTATTAACTA ATTTCTTCTT ACCAATTCCA	360
CCATATCATA CGGTAGGGTA TTGGCAGCTT CCTTCAAGGA ATAGTTCTCT AAGTTATTTA	420
CATTTTGTCG TAATTTCTTG GCATACTTAG TCGTAATCAA TCGTTTTTCT TCGTATTCGA	480
AAATCAACTT GCGCTCCAGA TAATAGCCTC TCAGCATTTT ATCGATATTG TTGGGTTTGA	540
CACGATTGAT AACCCGTTCC ACAAAGGCAC CACTGCTGAT AATAGCTGTT TCTCGAAGAC	600
GAGACTCCTG CATAAACTA ATCAAAGAGC GTCTGTAGAC TCCCTTCAGG TTTTCCAAAC	660
TTTCAATAAT CATCTCTGTA TTGGCAAGAT AGAGCTCTGC AATTGGTCA TAATCAAGAG	720
CACGGAGACG GCTTTGCTCC TTGTTCTTCC AGCTACGGAA GGTCTTTCCG AGAGTAAAAA	780
CTTCATGAAG GAGAAAACGT AAAATCCTCA AGGAAACAAG AAAATAATAG GTCAGTCTTG	840
AGGCAAGTTT ACGATTGATT CCTTGTCTTA TATTTTTCAG ATAACGTTGG TAAACTCGGT	900
AAGCACGATT GCTAATGTTT CCCTCTTCAT AGGCGTGTTC CAAACCATCA CTTTCAATAC	960
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AAATGAGATT TTCAATACGT CCATGATAAT TGTCAATAGC CGCATAGAGG GGAAGTTTAT	1080
TTCTGGTGTC TTCCAACCTT TTTTCCAACCT CTAGCGTTAC TTCATTCAAA ATGGCGATAT	1140
GCATAAGATA ATCCTTGCTT TCTTCTCTT CATCAGAAAG ATGAGGCAAG ACCAAGAGAC	1200
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GGGCGATAAG AGATAGCAAT AAAAGTAGAG GATTATAGAT TGGATTGGTC AAGATAGGTT	1500
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TCACTGTATG CCAGACCGTC TCGGTCACCG TATCCACTTG GGCTTCGAGG AGCGTGATTT	1620
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GAACTTCTTC TGCCAGAAAG AAGGTCACTA GAGGCAAACT CAATTCTAAT AAAAGTTCAC	1740

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TGGCAATATC CGTTGCGCGC ACACTTAGCA AGAAGGTATG GAGGAAGCGG TTGGTCATGG	1800
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GCCCCAGAGA AAAAGCTCCA GTTGTCCAAG CTGTCAAAGC TACCTGAAAA GCCACCAAAC	1920
CAGAAGCATC ATTCAAGAGT CCTTCGCCCT TAAGAATATT GGACACGCGC TTAGGAAAGC	1980
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GGAGCGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTGCATAAC TGGGATACCT	14640
GGTTCAAAAC CAAGGTCTGT TGCAGCGATT GGTGTAAAGA TATCGTAACC TTTCATAAGG	14700
TCTTCGTTTA CATCTTTCAC CATGACTGCA TCACAGTGAA CATCATAACC ACGGTTTGAA	14760
AGTTCTTCTT CTAGAGCACT TTTAATTG TGACTTGAGT TAACACCTGC ACCGCAGGCA	14820
GCAAGAATTT TAATCATTTA GATTTCCTCC GATTTTATTT TTTAATAGAC AAGATTAAGC	14880
GGTTGCTTCA GCAATGTAAG TATAAAGGGC TTCTGGTTCA GAAATTTTGT ATAGGTCTTC	14940
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTTCG TTGACTTGA	15000
ACTTGAATTA TTAATGATAA AGAAGAGTAG GGATACTTCT ACTTCCTTAT CAGGAGCTAT	15060
CATATTGTGA AAAGTTATTG GTTTTCTAA TCGAACAACC ACCACTTTCT CAGCTAGATT	15120
ATGAACAATA TCTGTGTGAG GAATCGCTAC ATTTGGCAAG TCCTTTCCTA GAAATTCAT	15180
ATCTAAACCA GTTGAAAATG ACTTTTCACG CGTGATCAAG GCTTCACGAT AAGTTGGAGT	15240
GACAATTTCT CGTTCTTCCA ATAAAGTTGC AACCTGATCA AAGAGTTGTT CTTGACTATC	15300
CGCTTCTAAG CAAAACACAA GGTTTTGTC AAAGAAATAA TCTAATACCA TAAGTTTTTC	15360
CGG	15363

(2) INFORMATION FOR SEQ ID NO: 140:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28882 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 140:

TAAGACTATT TAATAGTGGA GTGAAATAGG ATACGAACAA ATTGATTAGG AAAATCAAAT	60
GAATTATAG AAATCTTTTA GCAGTTATGT TATCCTATTC TAGTTTCAAA ACGCTATAGA	120

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AGCAGCATTG TGCTAGTCKA GATTCAGTTT ACTATACTAA AACGAGTAGC TTGAAATCAA	180
AAAACCCACC CTCACAGGCA GGTTTTATCT GTATTATTCA GCTAGATTAT GCTTTACCTT	240
CTGAACCGAA TACGTCGATA CGTTCTTCAA CCGATGCTTG GATAGCTTTT ACACCGTCAG	300
CCAAGAATTT ACGTGGGTCG AAGAGTTTTT TCTTGTCGTA TTCTGCTTCG TTTGCTTCGT	360
AGTCACGAGC AAATTTACGA GTTGCCTTAG CGAATGCGAT TTGGCATTCT GTGTTAACGT	420
TAACCTTGGC AACACCAAGT TTGATAGCTG CTTGGATTG CTCATCAGGA ATACCTGATC	480
CACCGTGCAA TACGATTGGG AATCCTGGAA GAGCTTCTGT CAATTTTTCG AAGTGGTCAA	540
GGTCAAGACC TTCCCGTTT ACTGGGTAAG GACCGTGGAT GTTACCGATA CCAGCTGCCA	600
AGAAGTCGAT ACCAGTTTCA ACCATTGCTT TAGCGTCTTC GATTGGAGCC AATTCACCTT	660
TACCGATGAT TCCATCTTCT TCACCACCGA TAGTACCAAC TTCAGCTTCT ACTGAGATAC	720
CTTTAGCGTG TGCTTTTTC ACAACTTCTT TAGCCAATTT AAGGTTTCT TCAACTGGAA	780
GGTGTGAACC GTCAAACATG ATTGAAGTAT AACCAACTTC GATACACTCA AGTGCATCTT	840
CGTAGTGACC GTGGTCAAGG TGGATAGCTA CTGGTACAGT GATACCCATT GATTCAACAA	900
GGTTAGCGAT CAAGTTGCGA GCAACTTTGT AACCACCCAT GTATTTAGCA GCACCCATTG	960
AAGTTTGAT CAAACTGGA GCTTTTTTAG CTCTGCTGC GCGCAAGATA GCTTGAGTCC	1020
ACTCAAGGTT GTTGTGTTA AATCCACCAA CTGCATAACC GTTGTACGG GCTGCTTGA	1080
CAAAATTTTC TGCTGAAACG ATTGCCATTT TATCAGGCCT CCTGTATATT TTTATGGGTC	1140
ATCCCATTTA CATTTGTCAT TTTATCACTT TTTGCCAAA AAATCTAGTT TTTCCCGCAG	1200
TTTCGATTGA TTTCTTCTA ACTCCATCTA TGTAAACCTT TTCTCTCCCT AGTCTTGGAC	1260
GACTTTTGA AAATCTATAA AGAAGGTAA ACTATCTCC TCCATCTCGA AACGATAAGC	1320
TAATTTTTC TGTCTAATA GACTCTTAAC CACAAAGAGC CCCATACCAG ACCCCTTGAC	1380
CTTGCGACTG GCATTGTCAG AAAAAGACTG GGCTAGTTT TCTTGTTCCT CTGAGCTACA	1440
GCTATTTTCG ATAAAAAGTT CTCCTTCTCT TTCTCCAATT CGAACTAAGC CACCTGGAAC	1500
AGAGTGCTTA ATGGCATTGC TGATGAGATT AGAAAGAATC AACTTCATAA CTGATGGGTT	1560
TAGATAAGCC TGCTGATGGG TCAAATATT GTCTATCTGG AGCTCTCTT CCTTGGCTAG	1620
CAAGGCATAA TCTTTGACCA GATTTTGCGT CATCTGGAGG AGGTCAATTG TTTCCCTATC	1680
ATCTCGCAAT TCCTGCACAG AAGAGAGGGA AAGTATCTGC AGAACATGGT GATTGAGTTC	1740
ATCCACAATC CCCAAGGCAA CTCCAGATA CTGGTCTCTA TCCTTATAAC GACCGATATT	1800
CTCTCTCATA TTTTCGATTA GGATTTTCAA ACTAGCCAGC GGTGTTTTCA ATTCATGAGA	1860
AGCTCCTCGT AGGAATTCGA CCTTCATCTT CTCCAGCTGG AGAATGGCTT CATTCCTTTC	1920

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ATGCAAGTCC GCAATAACAG TCAAGAGATG CTGGTAGAGG CTATTGATTT GTTCCTTGAG	1980
ATTACCTATC TCATCCTTAG AATCCACGCG CAATCGCACT TGGGAATCCA GGTCCATCAT	2040
CCGACGGGTC ACCCGCTTGA TTTCCAAAAT CGGTGCAACA ATAGTCCGAG CGTAGATGTA	2100
GGCCACCAAA AGGGAAATCA GAAAGGAGGC CAGCAAGGTA TAGGGAAGAA ACTGGAGACT	2160
GATTTGCTCC GCTTCCTTTT GTAAATCCAT GGAAGCTAGA AACTGGAGAA TCATAGTACC	2220
ACCGTCTTGC GTTTTCACCT CGCGCTCCTC AATAAAGAGA GAGGTTGTCT GGCGGTCTGT	2280
GTCCAGAGGA AGACTGTCCT TGACTTCTAA CTTGTCTCG GTCATCTCAC CTTTGACGGT	2340
CCCCTTGATA TCACTAGTCT GGGAATACAA GTCTAACACT TGCTCGATAC TCTGCCTATC	2400
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ACTCAGATAA GTCGAAGGAA AAAGAAAATA AATAGCTAAA TGAAGGCAGA TAACCAGAAC	2520
ACTAAATATC GAGAAGGTAT AGATAAATAT CTTTGCAAT AAACCTGTTT GTTTCATTTT	2580
CGCTCCAATT TATAACCAAC ATTGCGCACA GTGAGGATAC AATCCAAGTC TAGCTTTTTC	2640
CGCAATTCCT TGATATAAAC ATCAATAACA CGGTCAAAGG GAACCTCATC TGTCGCTTTC	2700
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TCCAGAATTT CCAACTCTTT GGCATTGATA GGCATTCTT GACCTGCGAG GCTTGCACTG	2820
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CGCTTGAAAA TCGCGTCCAC CCTCACTTTT AAAAGGGAGA GGGAGAAAGG TTTTTCAGA	2940
TAGCCATCTG CCAAAGAGGC AAAGGCACTC ATCTTGATTT CCTCATCTTG AAAAGCTGTC	3000
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AGAGCTTCCT GACCGTCCGC TGCCTCAATA GTTTCATAGC CACAATCCGT CAAATAATCA	3180
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AAGCAATGAT TTTCAACCACT GCTTTCGGAT TTATTTTGAA TTGTTAAATA GCCATTCCTA	3480
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TTTATTACCC ATCCAGCAAG AGCTCTTTTG GTTGTTTTCT AAGGAGATTG CTTGAAGCAA	3600
GCGCCATAAC GAGAACCACT AGAACCAAGG CAAGGACAAA AATGATGATA AAGTCTGATG	3660

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TCTGAATGGA AATGTCTAGG CTCGACAAGG TCTTGCTAAA GCCATCTACT TCTGCACCAC	3720
CACCAAGGTT AGAGGCTTGA GCCGCCTTAC TAGCCTGTTT GGCAACACCT GAAGTCACAT	3780
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CCATCTTGTA CATACCAGAG ATAGATTGCT CAAGAGCTGG GTAGTTAGAG GAGCTCTGA	4080
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CAAGAGATAC CAAACTACC TCTAAACAGA ATTGTAGGAA GATCGAGCTC TTGCCTTTTC	5940
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ATAATCCAAA CACGAAACCA GTCCACGTTT TTCAAGGACT GGTTTTGATA TAGCACGTTT	7140
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TTACTATAAT TGATAGTGGT CGCCCCAGCC AGATACCTTA TCTGCTATCC ATTTAGGAAC	7320
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TAAGTGAGTG GTACAGCCAC TACCTCGCAT ATTTTGTAC ATCATTTAAC GGTACATAAT	7620
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CCAACTGAAT CTTTTTAAAA ACTTGCGGTG CCTGTCCCTT GCCCTCAACC AGATAGGAAT	9000

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GGTCCCCAAG GACTATCCCA AGAAATCTCA CCTGGTTTGG AAGATTTCCA TAGAGCAAAG	10380
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GCCGTCACAT CCTCACGAAA GGCAGCGATG TACTTATCCG CAACCTCCTG AGGCGTGATA	10680
CCTTCTTCCC TGGCACGGTT GATAATCTTA TCATCCACAT CTGTAAAATT GGAAATATAG	10740

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GCAACCTTAT	ACCCACGGTA	CTCAAAATAG	CGACGAATCG	TATCAAAAGC	TACCGTCGAA	10800
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TCAAGTAAAT	TTCAGTCCGA	ATATCTCTAC	ACTTCGGAAT	CCCTTGCTCC	TTTCTCATTC	11040
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ACATTGCTAT	CTTCCACTGC	AATCTGAAAT	TCCTTGTCAT	TTTGCTCAAT	TAGTTGGTTG	11160
ACGAGGGATT	TTGCTAAGTA	GCTTCCATAG	CCTTTTCCAC	GTTTCAGGTC	CAATATTGCT	11220
AAACCGTAGA	GGTAATTCGT	ATTAGTCGAT	AAATCAACCG	TACAAGTTCC	AATAACCTGA	11280
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CTATCCACAA	CTTCTCTCGA	TTCATGTTCC	TCTGAAAATG	CCTGAAATTT	TAATTGACTA	11400
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CAGTTACTGG	CAAAGTCAGG	ATGATTCTCT	AAAAAAATAC	GTTCTGTCTG	AAAAGTGACT	11580
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CCCTGACGGC	GATGACCTGG	ATGAACCACT	ATCGTCACTT	CTACATCTTG	GTCATCTGCA	11700
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GCTCGAGTTT	ATTGACATAA	TACTCTCGTT	TTTCTTCGAC	TTCGTGAATG	ACAGGCTCAT	12000
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GCCCATAAC	TTGGGCATGG	GCTGATATGA	GGGCTCCCTT	TCGTACAGTC	GGATGGCGTT	12180
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CAACAATCGC	TGTCCTCTCA	ATCACCAGAC	CAGAACCATG	GTCAATAAAA	ACACCTGAAT	12300
CAATCTGGGC	TCCTGGATGA	ATCTCAATCT	GAGTCCAAAA	GCGCCAAAAC	TGACTGTACA	12360
TACGAGCTAA	TAGTTTGAAG	CCGTGCTTCC	AGAGAAAATG	CGAGAGACGG	TGGGCCGCCA	12420
AGGCCTTGAC	ACCTGGATAA	GTCAGCAAAA	CCTCCAAAGT	GGTGCGGGCC	GCTGGATCAT	12480
TTTCTTTTAC	AATATCAATG	GTTTCGCGCC	ACCACCCCAT	ACATTTCTCC	TTTCTTTATT	12540

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GGCGGTGAGG	GCGCTCAGAC	TTTTCACCTT	TTTCATCATG	CTCAGGTTTT	GGCGGACGAG	12660
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CATCAACTTC	ATCCCCGATT	TCTACCAAAT	CCTCTACACG	ATTGGTACGA	GTCCAAGCCA	12780
TCTCAGAGAT	ATGAACAAGG	GCATCTGTCT	TATCAAAGAG	GTTAACAAAG	GCACCAAATT	12840
TCTCGATACG	AACGACTTTA	GCACGGTAAA	CTTCATCCAC	TTTGGCTTCA	CGAACCAAAC	12900
CAGCAATAAT	TTCTTTGGCA	CGGTTAATAG	CATCTTGGTC	ACTAGAGTAG	ATAGACACAT	12960
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CTCCACCCTT	ACCGATGACA	ATCTTAATCT	TGTCCACATC	AATCTTGATC	GTATCAATTT	13080
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GGATTTCAAA	ACGCGCTTTC	TTGGCTTGAG	CAAGAGCCTC	CGTCAAGATT	TCTGCAGTAA	13200
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CACCAGCCAT	AAGGGCAAGA	GTTCCCGCAC	AGATAGAAGC	TTGAGATGAA	GAACCGTTTG	13440
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CTTGAGCAAG	AGCACGCTCA	CCAAGGGCAC	CGTGACCGAT	TTACGACGA	CCTGGCGCAC	13560
CGTAACGACC	TGTTTCCCCT	ACAGAATATT	GAGGGAAGTT	ATAGTGGTGC	ATAAAGCGTT	13620
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CCTTGCTCTT	TGTAATTAAA	CGTCGCACTT	CTGCGTGTTT	CATTTGTTCC	AAGATTTTCA	13860
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GAGTCTTGTC	AGCTGGGAAG	CCACCTTTAA	CGAGTTCAAG	AGTTTTCTTA	CCTTCAACAA	17820

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CCAATATTTA ACTTTATCTT TATACCTTTC TAAAACTGTT CGAGCAAAT TTTCATAAAA	26400
ATGAATCATT CTCCTATCAA CCCATCCATG ATATTTTCTT GCTAAATATA ATGGAGTCTC	26460
ATAGTGTGAA AGAGTTACAA GTGGTTCTAT CCCGTGAGCA TGTAGTTCAT CAAACAATTC	26520
ATCATAATAT TTCAACCCAG CTTCGTTAGG TTCTTCCTCA TCTCCTTTTG GAAAAATTCT	26580
ACTCCATGCA ATAGAAGTAC GAAAAACATT AAAGCCCATT TCAGAAAACA AGGATATATC	26640
TTCTTTATAT TTATGATAAA AATCAATACC TATCAATTTT AAGTTATCTT CTGTAGGATT	26700

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TTCTGTTGCT TCTCCTAATC CACCTTTGGG TAACACATCC TGAAGTATA AGCCCTTACC	26760
ATCTTCATTA TATGCTCCCT CTACTTGATT AGCTGCAACA GCTCCACCCC AAAGAAAATC	26820
ATCTGGAAAA ATGGTCATAA CTTTCCTCCA TTATAATATT ACCAGTAATT CCTTAGAATG	26880
CTCGATTGTC TGATTATTAG GTAATACTAA TACATCTAGA AAATCATTGG TATTCGTTAC	26940
AATTACTGGT GTAAGTGTTC CGTAGCCTTT AGTCTTGATT AAATTCAGT CCATTTCAAA	27000
AATCAACTGA TTTTGGAAAA CTCTGTCTCC TTCTTCTACA TGACTAATAA AACCTTGACC	27060
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CAATCCAATT GCGTGCTTAG TCGGAAAAAT ATTTGTAATT TTCCCATCAA ATGGTGCATA	27180
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TTTATCCTGG ACATCGCTTA ACGGAATGAT TTCTCCTGAT ATAGGAGAAA ATATCATTTT	27300
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TACAATATTT GATGGCACAT CAGAATAAAT AAATTGAGGC AACGCTATCA AAGATGGGAC	27480
AGCAATAGA TATGCTTTAA CACTAGTAAG ACCTGCAAAAT AATCCCGCTA ATCCACCACC	27540
AATCATAGCT GCATAAAGCG GTTTTTTATA TTTTAAAGTC ACACCATATA ATGCAGGTTC	27600
GGTAATCCCT GCAAGTAAGG CTGAGAAACC TGCTGCAAAA GCAATTTGTT TTGTATTATT	27660
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CATTGCTGGA AGAATTAATA CGTCTGGAGT AGCAATAGAT GCCGCCAAAA AAATAGGTGC	27780
AAAAGCCCAA TGCATTCCAG TCATAACAAT AAATGGCATA ATAGCACCAA GAATAGCTAA	27840
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AATTACTCCA ATAGGTCCGA CTACAATAA GGCAATACAG CTTGATACTA ATAATACTAG	27960
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TGTCACAGGT GCACCAAATA AACTAAGAGG ATTCCTGAT TGCAACATTT GAACAAAATT	28140
TGGATGGAGA AGTACACCTG CTACAGACAT AGCTAATGTA GATGTTACTT TTAATTTTGG	28200
TGATGCAGAA TAAGCTAATA ACAGCGGTAA GAAATAATAT GGAGCATCCC CAAAAAATGT	28260
CAAAAAAGCA ATAGTCTGAG AATCTGATTG CAATATACCA AGCATTGGTA AAATGATTAC	28320
CAAGACTTTC AACATACCTC CCCCTAACAT TGCTGGAATG ATTGGAGTCA TGGAACCAGC	28380
GATATACTCA ATGATTCTTT CTAAAATATT CCCTTTGTGC CCTTGAACAA CTGAATCGGA	28440

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ATCATCATTG ACTAAATTTT CATCTTTTAA TTCTAATCTT AAACGTGTTA CACAATGGGT	28620
AACTCTATTG ACATTTTTTT CACCTCCAAT TACATCGAGG ATTTTTTGTA CCGTATCTTT	28680
ATAACTCATG GTATTCTCCT ATTCTATTAA TCTAAATTTT TTGTTAAGCG ACGAATATGA	28740
GCCATCAAAT AACTAATTC ACTAGAAGTC AGCAAATAAT TGTACTCCGT TTGTATAAAC	28800
ATTGCTACCT GTTCACCACA TTCATATTCT CTAGGATATT TATTTTTCAT TAATGCTAAC	28860
AAGTCTTCAT CATCATCGTC GG	28882

(2) INFORMATION FOR SEQ ID NO: 141:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12835 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 141:

GCCTATGTCT TTTTCAAAAA AATGCTTGAC TTGAGACGGG AACTAGGGAA GTCTAAAGGC	60
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TTATATATGT AACTGACTTC GTCGATGCTT ATCTACAACC TCAAAGCAGT GCTTTGAGCA	180
ACTTGCGGCT AGTTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATTATA TTACTTTCTA	240
TTTGTAGGAG GTGGCTTATG AAGATTCCTC TCTTAACTTT TGCAAGGCAT AAATTTGTTT	300
ATGTCTTGCT TACTTTGCTT TTTCTTGCTT TGGTTTATCG TGATGTTTGG ATGACTTATT	360
TCTTTTTTGA TATTCATGCG CCCGATCTAG CTAAATTCGA TGGACAAGCA ATTAAAAATG	420
ACTTATTTAA ATCAGCATTG GATTTTCGTA TTCTCCAGTT CAATCTAGGT TTTTATCAAT	480
CATTTATTAT TCCAATCATC ATTGTTTTCG TAGGTTTTC AATATTAGAG CTGAAAAATA	540
AAGTTTACG ATTGAGTATT GGAAGAGAAG TGAGTTATCA AGGGTTAAAA AGAAAGTTGA	600
CTTTGCAAGT TGCAAGTATC CCTTGTTTGA TATATTTAGT GACTGTGCTG ATAATTGCAA	660
TTATAACCTA TTTCTTTGGG ACTTTTTCTC CTCTGGATG GAATTCCTCTA TTTTCTGATG	720
GAAGTGGTTT ACAAAGACTC CTAGATGGAG AGATAAAAAG CTATTTGTTC TTTACTTGTG	780
TCCTACTAAT CGGTATTTTC ATCAATGCAA TCTATTTTTT ACAAATAGTT GATTATGTGG	840
GGAATGTGAC TCGTTCGGCA ATCACCTATT TGATGTTTCT TTGGCTTGGT TCTATGCTGC	900
TTTATAGTGC CTTGCCCTAC TATATGGTTC CTATGACGAG TTTGATGCAA GCTAGCTATG	960

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TGCTTGAAAA ATATGAAGAT AATGTTAAG AATTTTAACA ATATTTTGCT AAATAGAAAAG	1080
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GCGGTTCAAA AGCAGGATGC TGTATCTTT TTCAAGAGAG AATTGATTTC AATTTTTTCC	1200
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TTACAGGAAT TTGAAGACAT TGAATACCGT CATTTATCCT TAGGAACAAA GCAAAAAATG	2100
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CTTTGGATTA ACTTATTAT CACATTTGCC ATTTTGCCGA TTTTGGCAA TTAAACAGTC	2640
ATAAAGTCG GAGAGGTTAG CTTGAAAAT AACCTCTTT TCCTTTTCAA AATGGGGATT	2700

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CTTCCTTGAA AATAATCAGT AATTGTGCTA AAATTAAAGG AACATTCTAA AATATTCCGA	2760
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AACCACTTTC CAAAAGAAGG AAGCAAAAA CTAGTATAAA CAGAAGAGAG AGCGAAATGC	11340
TCTTTTTCG TTTCTAAAAC TACTTTCAGC CCATCATCCT AAAAGTAAAG AATCTAAATT	11400
CACTTTCTAT TTACCCTTCT TTCTTGCAAT GATTACATAG ATATGCTACA GTTGTGGTAA	11460
CGATTACAAA ATAAAAGGAG CATGCTATGA AAAATCCAGC TTTGCTAGAA GAAATTAGAA	11520
CCTATAGAGG AAGGGATGAG GTTCCGGAAG ACTTTGATGA TTTCTGGGAT GGGGAAGTGA	11580

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AAAATGTTTC CACGCTTCCA TCCTACCACT TGGAGGAAAG AGATTTCAC ATTCCTCAAG	11640
TCAAGTGCTA TGAGTTAACA TTTGAAGGAA GCAAGGAAGG AAAGGTCTAT GCACGCATTG	11700
TTCTTCCAAA GAGTGAGGAG AAGGTCCCAT TAATCTTCCA TTTTCATGGT TATATGGGAC	11760
GTGGCTGGGA CTGGGCCGAC ATGCTGGGCT TCACCGTAGC TGGTTACGGT GTTGTTCCTA	11820
TGGATGTGCG GGGCCAGTCA GGTTACTCAC AAGACGGCTT GCGTTCTCCT TTAGGAAATA	11880
CCGTGAAGGG GCATATTATC CGTGGTGCTG TGGAAGGTCG GGACCACCTC TTTTATAAGG	11940
ATGTTTATCT GGATATTTAC CAGTTGGTCG AAATTGTTGC TAGTCTGTCT CAGGTGATG	12000
AGAAGCGTCT TTCTAGCTAT GGTGCCTCAC AAGGAGGGGC TCTAGCTCTA GTTGACAGCAG	12060
CGCTCAATCC TCGAATTCAG AAAACAGTTG CCATTTATCC CTTCTTGTC AACTTCAGAC	12120
GGGTGATTGA GATTGGTAAT ACTAGCGAGG CTTACGACGA ACTTTCCGT TATTTCAAGT	12180
TTACAGACCC CTTCCATGAA ACAGAGGAGG AAATCATGGC GACCCTTGCC TATATCGATG	12240
TCAAAAATCT TGCCCATCGT ATCCAAGGTG AGGTTAAGAT GATTACGGGC TTGGACGACG	12300
ATGTTTGCTA TCCCATTACC CAGTTTGC GA TTTATAATCG TCTGACCTGC GATAAACCT	12360
ATCGCATCAT GCCTGAGTAT GCTCACAAG CCATGAATGT ATTTGTCAAT GACCAAGTCT	12420
ACAACTGGCT CTGTGGAAGT GAGATTCCTT TTAAATATCT AAAATAAGGA GTCGACTCTA	12480
AGCACAAAAT CTAAAAAAT ACAAAACAGC ATAGTATCAG GGGATTAAGA AAACTTTATA	12540
CTATGCGTTT TATCATGGAA ATATAGTAAA ATGAAATAAG AACAGGACAA ATCGATCAGG	12600
ACAGTCAAAT CGATTCTAA CAATGTTTTA GAAACAAATG TGTACTATTC TAGTGTCAAT	12660
CTATTATATT TATAGAATTT TTTGTTGCTA GATTTGTCAA ATTGCTTAAA ATAATTTTTT	12720
TCAGAAAGCA AAAGCCGATA CCTATCGAGT AGGGTAGTTC TTGCTATCGT CAGGCTTGTC	12780
TGTAGGTGTT AATACTTTTC AAAAATCTCT TCAAACCACG TCAGCTTCGC CTTGC	12835

(2) INFORMATION FOR SEQ ID NO: 142:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5020 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 142:

GGGGATATGA AGAACAAAAG AATATTTAAA GACTTCCAAG CTTCAAAAAT GAGTTTAAAC	60
ATTTACACAA GCCCCTTGTT AGCCTTTGTT TTTGTCTTCA TAGGAGAGTT TGTGGCTTTT	120

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ACTTTGTATG GTATTGGCTT GTTAGCTCTC ATCGGACTTG CTAGAAATTT TGGAGAGGCT	180
GGTCAAAATC TTGCAAGCTA CTTGCAGACC TTGCATCAGA GCTTGACGGA TAAACAAGT	240
GACTTTCGTT TAATTTTAGG ATTACTGGCC TTTGGTTATT CTTAACACTG TGTTTCAGATG	300
GACAAGAAAA GTTGAGAAAA GACCTATTTCG AACCTTGGGA TTTTATAGAG AGAATTTCCCT	360
CAGCAATCTT CTGAAAGGAT TTAGTCTAGG CCTGGCACTT TTTCTTCTGA CCTTGTTAGG	420
TTTAGTGGTC TTAGGTCAAT ATCGTTTGGA ATCCATTAC TTGAATCCTT ATTCTCTTGC	480
CTTTGTCTGC TTTACTATCC CATTTTGGAT TTTACAGGGG ACAGCAGAAG AAGTGGTGGC	540
CCGTGCTTGG CTACTTCCTC AATTGGCCTC AAGAACCAAT CTAAACTAG CTATTCTTAT	600
ATCTAGCCTG TTCTTTACCC TGCTTCATAT GGGCAATTCT GGTCTCACC CTCTATCTCT	660
AGTAAATCTC TTTTATTTCG GAGTTGCCAT GGCTCTTTAC CTTCTCAAAA CTGATACAGT	720
TTGGGGTGTT GCAGGTATTC ATGGTGCTTG GAATTTTGCT CAGGGTAATC TCTTTGGGAT	780
TTTAGTTAGT GGTCAACCGT CAGAACGTCT CTGATGACCT TTTTACCACA AGGCAATCAA	840
GATTGGCTAT CAGGTGGTTC TTTTGGCATA GAAGGTTCCA TTATGACAAG TCTGGTATTA	900
CTACTGCTGA TTGCTATCT TGCTAATAAA TTAAGAAAG AAAATGAAAG GATGTGACTT	960
CGGTCCGTCC TTTTCTTCGT GAAAATACTA TAAGTATGCT AAAATAGGAA TAGCACATGG	1020
AGAGAGGATT CTTATGATCA ATCACATTAC AGATAATCAA TTTAACTAG TATCAAAATA	1080
TCATCCATCA GGAGATCAAG CCCAAGCTAT CGAGCAGTTG GTGGATAACA TTGAGGGGGG	1140
AGAAAAAGCT CAGATTCTGA TGGGGGCGAC TGGAACAGGG AAGACCTATA CTATGAGTCA	1200
GGTCATTTCT AAAGTCAATA AACCAACTCT GGTATTTGCC CACAATAAAA CTCTGGCTGG	1260
TCAGCTCTAT GGGGAGTTTA AGGAATTTT CCCTGAAAAT GCAGTTGAGT ATTTCTGATC	1320
CTACTATGAT TATTACCAGC CAGAGGCCTA TGTCCTTCT AGCGATACCT ATATTGAGAA	1380
GGATAGTTCT GTCAATGACG AGATTGACAA GCTTCGCCAC TCAGCTACCT CAGCCCTTTT	1440
GGAGCGTAAT GATGTTATTG TCGTGGCCTC AGTCTCTGT ATCTATGGTT TGGGTTCCGC	1500
CAAGGAATAC GCTGATAGTG TCGTTAGTCT CCGTCCTGGT CTAGAGATTT CTCGTGATAA	1560
ACTCTGAAT GACTTGGTCG ATATTCAGTT TGAACGTAAT GATATTGATT TCCAACGCGG	1620
AAGATTTTCG GTTCGTGGG ATGTGGTAGA GATTTTCCCA GCTTCCCGAG ATGAACATGC	1680
CTTTCGAGTA GAATTTTTTG GAGACGAAAT TGACCGTATT CGTGAAGTTG AGGCTCTGAC	1740
AGGTCAGGTG TTGGGAGAAG TGGATCATTT AGCGATTTTC CCAGCGACAC ACTTTGTGAC	1800
CAATGACGAC CACATGGAAG TTGCCATTGC AAAGATTCAG GCCGAGTTGG AAGAACAATT	1860
AGCTGTCTTT GAAAAGGAAG GTAACTGCT TGAAGCCCAG CGTTTGAAAC AGCGGACAGA	1920

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GTATGATATC GAAATGTTGC GTGAGATGGG CTATACCAAT GGGGTTGAAA ATTATTCTCG	1980
CCACATGGAT GGACGGAGCG AAGGAGAGCC TCCTTATACG CTTCTCGACT TCTTCCCAGA	2040
TGATTTCCTG ATTATGATTG ACGAGAGTCA TATGACCATA GGGCAAATCA AGGGCATGTA	2100
CAATGGAGAC CGTTCGCGTA AAGAAATGCT GGTAAATTAT GGTTCGCGTT TGCCGCTCTGC	2160
TTTGGACAAT CGTCCCTCTCC GTCGGGAGGA GTTTGAGAGT CACGTTTCATC AGATTGTTTA	2220
CGTTTCAGCG ACACCTGGTG ACTATGAAAA TGAACAGACC GAGACAGTGA TTGAGCAAAT	2280
CATTGCTCCA ACGGGACTCT TGGATCCAGA GGTGGAAGTC CGTCCGACTA TGGGACAGAT	2340
TGATGACCTC TTGGGTGAAA TCAATGCCCC CGTTGAAAAA AATGAGCGTA CCTTTATCAC	2400
AACTTTGACC AAGAAAATGG CAGAGGATTT GACCGACTAC TTCAAGGAAA TGGGTATCAA	2460
GGTCAAGTAC ATGCACTCGG ATATCAAGAC CTTGGAACGG ACGGAGATTA TCCGTGACCT	2520
GCGCTTGGGT GTCTTTGATG TCTTGGTCGG AATTAACCTG CTCCTGGAAG GAATTGACGT	2580
TCCTGAAGTG AGCCTCGTAG CTATTCTCGA TGGTGACAAG GAAGGTTTCC TTCGCAACGA	2640
ACGTGGACTC ATCCAGACCA TTGGACGTGC TGCACGTAAT AGCGAAGGTC ATGTTATCAT	2700
GTATGCGGAC ACGGTTACCC AGTCTATGCA ACGTGCTATC GATGAAACTG CCCGCCGTCG	2760
CAAAATCCAG ATGGCCTATA ATGAAGAACA TGGTATCGTT CCACAAACCA TCAAGAAAGA	2820
AATCCGTGAC TTGATTGCTG TGACCAAGGC AGTTGCTAAG GAAGAAGACA AGGAAGTCGA	2880
TATCAATAGC CTCAACAAAC AAGAGCGCAA AGAACTAGTC AAAAAGCTTG AGAAACAAAT	2940
GCAAGAAGCA GTTGAAGTGC TTGACTTTGA ACTAGCAGCT CAGATTCGTG ATATGATGCT	3000
GGAAGTCAAG GCCTTGGATT AGGGGAATAG TATGATTTAT TTAAGAAAGT TAAAGAAAGA	3060
AGATTTGATG TCTTTATGGG AAATGGCTTA TTCACAGCTT AATCCAGTTT GGAAACAGTA	3120
TGATGCTCCC TATTATGATG ATTATCAGTA TTTTTCAAAT TTAAAGAAT TCGAACTACA	3180
AAAATCAGAA TCCATTTTAA GCAACTCAA TCGCCTTGGT ATTTTGTGTT ATGATAAACT	3240
AGTTGGGACT GTTTCGCGTT ATTGGGTATG TAAAGAAACA AGATGGATGG AATTGGGAAT	3300
TGGTATTTAT GATAAAAAAT TCTGGAACAC TGGTATTGGG AAAGTTGCTA TGTGTCAGTG	3360
GATAGATAGG ACGTTTCAGG ATTACTTGA GTTGGAGCAT CTGGGTTTGA CAACTTGGTC	3420
AGGAAATATT GGTATGATGA AACTTGCTGA AAAATTAAGA ATGAAAAAAG AAGCTCATAT	3480
TCCAAAAGTT CGTTATTATC AAGGTAATA TTTTGACAGT ATTAAATATG GTATTTTGAG	3540
AGAAGACTGG GAGAAAATA ATGACGGTTA TTATCAAATC AATGGAAACT CCTGAAGAGA	3600
TAGAAGGTAA ATCCTTCGTT CACTGGCAA CGTGGAGAGA GGCTTATGAT GACCTTTTGC	3660

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CTGCGGAATT TCAGGAGACA ATGACATTAG AAAGATGTCG ACTCTTTAGT CAAAAGTATC	3720
CAGAAAATAC ATTGATTGCG ATGGATGGTG TGAAGATAGT TGGTTTTATA AGTTATGGCA	3780
ACTGTCGTGA TGAGACTATT CAAGCTGGTG AAATTATTGC TTTATATGTT TTTAAAGACT	3840
ATTATGGAAA AGGAATCGCA CAAAAGTTAG TGAAAGCAGC TTTGACTGAT CTTAATCATT	3900
TTTCTGAAAT TTTCTTATGG GTATTGAAAG ATAACAAGCG CGCCATTGCT TTCTATCAAA	3960
AAATGGGTTT TACTTTTGAT GGACAAGAAA AAATACTTGA ACTTGGAAG CCTATAAAGG	4020
AAAAACGGAT GGTATTCTAT TCTAAATAAT TCTCAAAAGT AAAAGCTAAT ATGGTACCAA	4080
GTCTGAAAAA TTAATAAATT AGAAAGCGAG TAAATTTATG TCCCCTTCCC AATTAACAAT	4140
TTTAACAAAT ATCTGTCTGA TTGAAGACCT CGAAACTCAG CGCGTGGTGA TGCAGTATCG	4200
CGCCCTTGAA AACATCGCT GGTCTGGTTA TGCCTTTCTT GGAGGTCATG TAGAAAATGA	4260
TGAGGCTTTT GCGGAGTCTG TCATTCTGTA AATCTACGAA GAAACAGGGT TGACTATCCA	4320
AAATCCTCAA CTTGTCGGCA TTAATAATTG GCCACTAGAT ACAGGTGGGC GCTATATTGT	4380
CATTTGTTAT AAGGCGACTG AGTTCTCTGG TACCCTTCAA TCTTCAGAAG AGGGAGAAGT	4440
TTCTTGGGTG CAAAAGACC AGATTCCAAA CTTAAATCTG GCCTATGATA TGCTACCATT	4500
GATGGAATG ATGGAAGCTC CCGACAAGTC AGAGTTTTTC TACCCTCGCC GTACAGAAGA	4560
CGATTGGGAA AAGAAATCT TCTAGTCTTT TACTAAATAA CCTAGCTGAT CCAAGGCCTC	4620
CTCGATATAG TGGAGGCTTT GTTGTGTCTC GGCTTCAACT AGGTGATAAT GAATACCATC	4680
TGTTAACTCA GAAATTGGCT TAAAGTCAGA ACGTTCAACT TGTTCTAGAA AATGTTGCAC	4740
GTCGCGCGCA CAGGTCAGTT TTAGTAAGGT TTCAATCTCT CCATAAACAG GATGATCAAT	4800
CAAGATATTT TGAACGCGAC CACCATTATC TACGATAGCA AGTAATTCTC GTCCAATTTC	4860
TTCAACTTCA TGCTTGACCT TAAATAATTT GTGATGATAA GTATTTGCAT TAGCATCTTT	4920
ATAGATATAA CCACGATTGG TAGATAGAAT TGGAGATCCA TCAGCTCTTA AAATTGCAAT	4980
ATCTTGAACA ATAATTGTC GAGTGACATG AAAGTGCTCA	5020

(2) INFORMATION FOR SEQ ID NO: 143:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4965 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 143:

AAAAAGTGGC AATCCATTGA TTGGCCACTT CATTTAGAGA ATTATCGTCT CGCCCTTGAA	60
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GAAGAAGGTC GTGTAGTACT TGAGTTACTG CTATCGCTAG AACTACTACT TGAAGTCTG	120
GAGCTGGATG GAGTTGGTAG ACTCCCCACA ATACTAGACC AAGCATTCTG ATAATCCGCA	180
TCACCTCCGC CAATAGCAAA GCGATAACTT GTCGCTGGCG CTCCTGACTT ATTAGCCCAA	240
TAGCTGGTAA CAGTCGAACC TGTGACCTCT ACTTCTTTTC CTTCACAGA AACCTTCTCT	300
GGTTTTTGAC CTGTTGATTT CAAGACTTCC GATTTCACTA CACTAGGATC TAAAGCAAAG	360
CGCTCGTTCC CCCAAATGCT TGGGGAAGCT TGCTGAATCG CATTTACCAG ATGAGCCATG	420
TAATTAGAGT TATTAGAATA ACCTGCTCTA CGTGACAATG AATGATTATC ATCATGCCA	480
ATCCAGCCAC CTAGGGTTAA TCTAGGTGTC GAAAGCATGA GCCACATATT TTCGTCTTGG	540
TTGGTTGTAC CAGTCTTCCC AATCCAATCT GCATTAGCCA GAGTAGGATT TAAAGAAGTC	600
AGGTTAGACT TGAAGTTGT TGTACACGA GAGGATAGAA CTTCTCGTAG CAATCCCTGC	660
ATAATCGTCG CAGTAGCTTT TGAATAGACT TGAACCGGTT TATCCTGATA CTCATACACC	720
ACTCTACCAT CTGCTGCTTC AATCTTTGAA ATCACATGCT TCTGATGATA AACTCCATTA	780
TTAGCTAAGG TCTGATAGCC ATTGGTATGC TGGGCAACTG TGACTTCAAT ACCACCACCC	840
ATTGGAAGC TCTCAATACC GTACTCAGGA ATCTCGTAAC CCATCTTTTC CATATAACCC	900
TTGACATCAA CACCTTTTC ACGGAGCATA CGATAGGTCC AGTAAGCAGG GATATTCCAT	960
GAATAGTTCA GAGCTTCTCC CAAGGTCATC ATTCTGTTC CCTTGCTATT AGCATACATA	1020
ATCGGATTGC CATTAGCAAA GTTTGTTGGA TAGTTAGATA GAATCGTTTC ACTTCCCATC	1080
AAGCCCTGGT CAATAGCAAT ACCGTAGGCC AGCAAGGGCT TGGTAGTAGA AGCTGGCGAA	1140
CGTTTGGTAT CAAAGGCATG ATTATTTTGA TTTTCTTGAT AATTACGACC ACCTACAAAG	1200
CCTAGAATAG CACCTGTTTG GTTATCCATC AAGACATTCC CTACTTCTAC ACGACCTGTT	1260
CCATCGTCTA AAAGATAGCC ATAATCAGCA ACCGCACCTT GCATGGCAGA ATGAATTTTC	1320
TGATCTATGG TAGTAGTAAT CTTATAACCA CCATTTTCAA TTTCTTGCC TGCCAAATCT	1380
CGATAAACT TCTGAGTTGC CTCATTTTC AACTCCTTAG CGGAGACATT GTCTCTCTGA	1440
GCTAGATAGT CATACATACG TTCTTGAGCT TCTGCCAAAG TTGTAAAGTA TAAATAGTCT	1500
CGTGAAATTC CTGTAACCGT GCCCGATGGT AAAAAGTCCT GTTTAAGGTC ATAATCCTTG	1560
TACTGAGAAT ACTCGTCTTT GCTTAATGCA CCTGTACGAT ACATACTGTA AAGAACTGCC	1620
TTAGCCCGTC TTAAGCCAAT TTCTAGGTCT TCATCACTCT TCAACTCCCC AGTATTTTCA	1680
TAAGGAGAGT AAGTAATGGG ACTCTGTGGA AGTCCTGCTA AAAATGCTGC TTGAGGAACA	1740
GTCAACTGAC TGGCATCTAC ACCGAAAATT CCCTCAGCTG CTTGCCGAGC CCCTGCAATA	1800

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TTCTGTCCCT TATTATTTCG GCCAAAGGGA GCCACATTGA GATAGGTCGT TAAAATCTCA	1860
TCTTTATTCA TGGCGCGTTC CAAGGCAAGA GCATCCACAA TCTCTGCCGC CTTACGAGCC	1920
AAGGTCGGCG CATCCCCAAC CACCTGCTGT TTAATTAGTT GCTGGGTCAA GGTGAACCC	1980
CCACTAGAGG AACCCAAACC TACAAATTTC CCCAAGGTCG CACGAATCAC CGCCTTGGGT	2040
ACTACACCCT TATGTTCTTT AAAGTGTTCA TCTTCTGTCG CAATGATAGC CTTCTTCAGA	2100
TTTTCGAAA TTTGCTCAGA TGAGATAGAA GTGCGCAACA AATCACTCTC TATGGAAGCA	2160
ATCACCGTCC CGTCCGAATA GGTAACTCTT GAAATAGAAG AGATGTCCTT GACCTGATTC	2220
ACCAATTCTT CTGCTGAGG CACCCGAACC TTGTCAAATA AGGCCACTCC GTATCCCAA	2280
GCAATCCCAG CTCCCAACAT TCCTCCTAGA AAACCGAGTA CAAAGAGTAA GTTAAATAAG	2340
GCTTTTATAC TCAGTAAAT AGCTGGGAAA ATGACTGACT TATCTAAGGT TTAGATTTT	2400
TTGGTACTTG AACCTTCTT GCCAGGTCTA GCTGATTTTT TATTTTTTTG TTTTGCTGG	2460
AAAAATCCA GCATTTTTCG TTTTAATTCA TTTAATTGAT TTTGCATGGA TTTCTCACT	2520
TTATCTATTA TACCACAAA GGGAAATTT CAATAAATA GCCACTTCT TCCTATTCT	2580
GCTAGGTAT TGCCCAAGTT TGTGATACAA TAGGTAGAAA CAATAATTTT AAAAAGGAGA	2640
AAAAACACAT GCACATTTT GATGAGCTAA AAGAGCGTGG TTTGATATTT CAAACGACTG	2700
ATGAAGAAGC TTTGCGTAAA GCCCTAGAAG AAGGTCAAGT TTCTTATTAT ACTGGCTACG	2760
ATCCAACGTC TGACAGCCTT CACCTAGGCC ACCTTGTCGC AATCTTGACA AGTCGTCGCT	2820
TGCAACTAGC AGGTACAAA CCTTATGCGC TCCTTGCGG TGCTACAGGT CTCATCGGAG	2880
ATCCGTCCTT CAAAGATGCT GAACGTAGTC TCCAAACAAA AGACACAGTA GATGGCTGGG	2940
TCAAGTCTAT CCAAGGACAA CTTTCTCGTT TTCTTGACTT TGAAAATGGC GAAAACAAGG	3000
CTGTCTGGT CAACAACAT GACTGGTTG GCAGCATCAG CTTCAATTGAC TTCCTCCGTG	3060
ATATTGAAA ATACTTCACG GTCAACTACA TGATGAGTAA GGAATCTGTT AAAAAACGGA	3120
TCGAAACAGG AATTTCTTAC ACTGAGTTCG CTTACCAAAT CATGCAAGGG TATGACTTCT	3180
TCGTCCTTAA CCAAGACCAT AATGTCATC TTCAAATCGG TGTTCTGAC CAGTGGGGAA	3240
ATATGACAGC TGGTACCGAA TTGCTTCGTC GTAAGGCGGA CAAGACTGGT CACGTTATCA	3300
CTGTTCCACT AATCACAGAT GCAACTGGTA AGAAATTGG TAAATCAGAA GGAAATGCCG	3360
TCTGGCTCAA TCCCGAAAAG ACTTCTCCAT ACGAAATGTA CCAATTCTGG ATGAACGTGA	3420
TGGACGCTGA CGCTGTCGC TTCTTGAAAA TCTTTACTTT CTTGTCACTT GATGAGATTG	3480
AAGATATTCG TAAACAATTT GAAGCAGCGC CACACGAACG CTTGGCTCAA AAAGTCTTGG	3540
CTCGTGAAGT TGTACACTT GTTACCGGAG AAGAAGCCTA CAAAGAAGCA CTTAACATCA	3600

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CTGAGCAACT CTTTGCAGGA AACATCAAAA ACCTTTCTGT CAAAGAGCTC AAACAAGGAC	3660
TTCTGGTGT GCCCAACTAC CAAGTACAGG CAGACGAAAA CAACAATATC GTGGAACTGC	3720
TCGTCTCATC TGGTATAGTT AACTCAAAAC GCCAAGCCCG TGAAGACGTC CAAAACGGAG	3780
CCATCTACGT AAACGGCGAC CGCATCCAAG AGCTTGACTA TGTCTTGAGT GACGCTGATA	3840
AGTTAGAGAA TGAAGTACT GTTATCCGTC GTGGGAAGAA AAAATACTTT GTATTGACTT	3900
ACTAAACTAT TCAACATTTA TCTATAAACA AAGGAGTTAA CCTCGAGAAA GGTAACCTCT	3960
TTTTGCTGTT AATAACTCTC ATCTATCTAT TTTTAATAGA CAGGCTACGC AGGACAATGC	4020
GCAAGTTGT TAGATTATGT AAGATAGAGA GATTGAAGG ACTGAACCAA TTAAATAAGC	4080
CAAAGCCAAT CAAACTACTA TTTACGACAA CGGTATCCTG AATATTTTTC TTGATGAGTG	4140
TTTGCAAAGA TGATGATAAC GAATCCAACCT CTTGGAAGAA ATCCAAACGA TTATCTAACA	4200
ATAAGATATC ACTCATCTGC TTAGAAATAT CTGCACTCTC ATTCATCACC ACACCGATAT	4260
CTGATAGAGT TAAAGCCGCT GAGTCATTCA ATCCATCTCC AACCATCAAA ATAGTGTGAC	4320
CTGCTTTCTG CAGTTTCTCT ACTAACTCAA ATTTCCCATC AGGTTTCAAG TCTGTATAGA	4380
CCTGATCAAA GGGCAAATCT TTGACTAATT CCTCTGTCCT AATCAAGGTG TCTCCTGTTG	4440
CCAGAATCAA TTTTTTCCCC TGTGCCTTAA GTTTATCCAA GGCTGTTTMT GCTTCTTTTC	4500
TCAAAGGAGT ATGAATGCAG AACATTCCAA TCAATTGATT TTGATAAGCC AAGAATAAGA	4560
GATTGTAGTG ACTCTGTAC TCTTCAATTA AAGCATTTTG TTCTGAACTG ATATGAATCT	4620
GCTCATCCTG CATCAAGACA TAATTCCCAA TAAGAACTGG TTGGCCATCT ATATGAGATT	4680
TGATCCCCTT GCTTGCAGTA TATTGGAGTT TCCCATGCAT TTCCTCATGT TCAATTCCTT	4740
CTATCTCAGC TTGCTTGACG ATGGCATTAG CAATAGGATG ATAAATGTGT TCCTCAAGAC	4800
AGGCACTGAT TCTGAGAATA TCTTCCTCAC TATAGTCTCC AAAAGGTAAC ACCTTTTCAA	4860
CTATAGGATA ACTAGTTGTG ATTGTTCTCTG TCTTATCAAA CAAGAAAGTA TCAACTTCCA	4920
GATATTTCTC CCTGTTGTGG CCTCTGGCTG TCATCTCTGT GCTGG	4965

(2) INFORMATION FOR SEQ ID NO: 144:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3232 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 144:

970

CAGGGGCGTA TTACGTGACA ATTCAATGTA GGCTGTCGCT ACTTGCGCCA AAACAAGGAT	60
TCGATAATGT CGGATGATAC TAACGATTAA ACCGAGCAGA AAGGATCCCA AAATTCCTCA	120
AACTGCAATA TGCAAGGTCA GAAAGAATGC CTTTGTGATAT AGTGGTAGAT ATTGTTCAAC	180
AATGGATCAA TCCAAAAATA GAACCTCCCA TCTAGAAAATA ATACAGTTAT TGTAGCACTT	240
AAAATCTTCT TTGGATAATA TCTATTTTTT ATTGCCGTTA TAAGGATTTT TATCATAGAC	300
ATAAAAATTC TGAAATTTC AAACAAAATA TTTTAAAAGT TTTGAAAAAG AGTTAAGATA	360
TTTTTGTAAT ACACAAAGTA AACGCTTACT TATTAAGGAG GACATTTTAT GTCATACAAA	420
ACAAGCAATG CAGAAGGTCA TGTAGATTTC ATCAATACCT ATGATTTGGA GCCAATGGCG	480
CAACAAGTTA TTCCTAAAGC AGCATTGGC TATATCGCTA GTGGGCGGG AGATACTTTC	540
ACTTCTTCC AGTGATTTTA GCGTCAGGT CTTTTAGTT TTTAAAGATT ATCCGTGAAT	600
TTCTTGCTTA TTTATGATAA AATGGGAGTG TCGCAAAAA TGACTCATCG TATTCAATTT	660
TGAGTAAAAC TAGGAGGATC CCATGTCTAC AGAACATATG GAAGAACTAA ATGACCAGCA	720
GATCGTTCGC CGTGAAAAA TGGCTGCGCT CCGCGAACA GGAATCGATC CTTTCGAAA	780
ACGTTTGA CGTACTGCAA ATTCACAAGA ATTAAAGAT AAATATGCCA ACCTCGATAA	840
AGAACAATTA CACGATAAAA ACGAAACAGC TACTATCGCA GGACGCTTGA TAACCAAACG	900
TGTTAAAGGA AAAGTTGGTT TTGCCACCT TCAAGACCGC GAAGGCCAGA TTCAGATCTA	960
CGTTCGTAAG GATGCTGTCG GTGAAGAAA CTACGAAATC TTCAAAAAAG CAGACCTTGG	1020
TGACTTCCTT GGTGTCGAAG GTGAAGTGAT GCGTACGGAT ATGGGAGAAC TCTCTATCAA	1080
GGCAACCCAC ATCACACACT TGTCTAAGGC TCTTCGTCCT CTTCTGAGA AATTCCATGG	1140
TTTGACAGAC GTTGAAACAA TTTACCGTAA ACGTTACCTT GACTTGATTT CTAATCGTGA	1200
AAGCTTTGAA CGCTTTGTCA CTCGTTCAAA AATCATCTCT GAAATCCGTC GTTACCTTGA	1260
CCAAAAAGGA TTCCTTGAAG TGGAAACACC TGTTCTTCAT AATGAAGCCG GTGGTGCTGC	1320
TGCCCCGTCCA TTTATCACCC ACCACAATGC CCAAAACATT GACATGGTGC TTCGTATCGC	1380
GACTGAGCTT CACTTAAAC GCCTTATCGT GGGTGGTATG GAACGTGTCT ATGAAATTGG	1440
CCGTATCTTC CGTAACGAAG GAATGGACGC TACTCATAAC CCTGAGTTCA CTTCTATCGA	1500
AGTTTACCAA GCTTATGCAG ACTTCCAAGA CATCATGGAC TTGACTGAAG GCATTATCCA	1560
ACACGTGCT AAATCAGTCA AAGGTGATGG CCCAGTCAAC TACCAAGGTA CTGAAATCAA	1620
GATTAAAGAA CCATTTAAGC GTGTTTATAT GGTGGATGCT ATCAGAGAAA TTACTGGTGT	1680
CGATTTCTGG CAAGACATGA CTTTGAAGA AGCTAAAGCT ATCGCTGCTG AGAAGAAAGT	1740
TCCAGTTGAG AAACACTACA CTGAGGTTGG TCACATCATC AATGCCTTCT TTGAAGAGTT	1800

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TGTTGAAGAA ACTTTAATCC AACCAACCTT TGTCTATGGA CATCCAGTAG CTGTATCTCC	1860
ACTCGCTAAG AAAATCCTG AAGACCAACG CTTTACTGAC CGTTTCGAGC TCTTTATCAT	1920
GACTAAGGAG TACGGTAATG CCTTTACTGA GTTGAACGAC CCAATCGACC AACTTAGCCG	1980
TTTGAAGCC CAAGCTAAAG CCAAAGAACT TGGTGATGAT GAAGCGACAG GAATCGACTA	2040
TGACTACATT GAAGCTCTTG AATACGGTAT GCCACCAACA GGTGGTTTGG GAATCGGTAT	2100
CGACCGTCTC TGCATGCTCC TCACTGATAC AACAACTATC CGTGATGTAT TGCTCTTCCC	2160
AACAATGAAA TAAATTCCTA TCCTCTGGGT CTTATCAGAG GATTTTGTGA TTCAAAAAGA	2220
GACTGAATTT AAGGAGAAAA TGAAGTGTAG TATATTGAAA TTGAAATAGT ACACTTTGAT	2280
TTCTAAGACA TTGTTAGAAA TTGGTTTAAA TTCCCTAAGC AATTTGTGCA TGTTTTATTT	2340
CATTTTACGA TAGTACGCTG AAACCTTTCA AAAAGTACTA GAAATGACT TGGATTCCCC	2400
AATTGATTTG TTCAGATTCA CTATAAATAA AAAATTAATA AGTGGGATAG GAAGTTAGCG	2460
TCAACTAGGA TAGTATCTTG CTAAACAGT ATATATGGGA TTGATATAAG TCCATAGGTC	2520
CTATTAGAGG ATGTTCTGGT GTCTTATTCA CTTGTTTTTT ATAGTATTAG TAGATAGAAT	2580
CAGCAAATAA AAACCCAAAT CATTCATACC TCTCTCACT AGATGTAAC TACAAAACCC	2640
CTGACCTCAT GAGCCACTTT CTCTCTCTC ATGAGGTCAG TTTTACTTTC TGCTGTTCCA	2700
GTATCGTTTT TCCTCGCTAG ATTTCTCTCA AAGGGCAGAC TCCTCCCTTG GTGCGTCACA	2760
CGATTTTTTC ATCTCGACTG TTCTTTAATG CATCATTAAC GACGCTTTTC TTCTAGGTGG	2820
TTCATAAGGA ACAGGAAGAT TCAGGTTGAC TTTTCTAATC CTAGAATAAA GTGCTGAAAA	2880
CAATTCGGAA TAGGCATAGA GACTAGACAA TTTGAGGAGC TGCTTGCGTC CTGTTCGAAC	2940
ACATTTTCCC ACCACGTGAA GAAAAAGATG GCGGAAGCGT TTGATTGTTA AAGTTTGAA	3000
GTCACCTCCA GCTAGATGTT TGAGAAAAAG ATAGAGATTG TAGGCGATAC AGCTCATCAT	3060
CATACGAAC TCGTTTTTGA TTAAGGTTGA ACTATCCGTT TTATCGCCAA AAAATCCCTC	3120
CTTCATCTCC TTGATGAAAT TCTCGGCTTG ACCACGTCCA CGATAAAGCT GAACTGGTC	3180
TTGGCTTGTT CCACTCGTCA TATTTGTAAC GAGAGAAATA ACATCGTAGA AC	3232

(2) INFORMATION FOR SEQ ID NO: 145:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10711 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 145:

CCGGAGAAAA TGATGAAAAG TTCAAACTA TTTGCCCTTG CGGGCGTGAC ATTATTGGCG	60
GCGACTACTT TAGCTGCATG CTCTGGATCA GGTTCAGCA CTAAAGGTGA GAAGACATTC	120
TCATACATTT ATGAGACAGA CCCTGATAAC CTCAACTATT TGACAACTGC TAAGGCTGCG	180
ACACAAATAT TACCAGTAAC GTGGTTGATG GTTTGCTAGA AAATGATCGC TACGGGAACT	240
TTGTGCCGTC TATGGCTGAG GATTGGTCTG TATCCAAGGA TGGATTGACT TACACTTATA	300
CTATCCGTAA GGATGCAAAA TGGTATACTT CTGAAGGTGA AGAATACGCG GCAGTCAAAG	360
CTCAAGACTT TGTAACAGGA TTAATAATG CTGCTGATAA AAAATCAGAT GCTCTTTACC	420
TTGTTCAAGA ATCAATCAAA GGGTTGGATG CCTATGTAAA AGGGGAAATC AAAGATTTCT	480
CACAAGTAGG AATTAAAGCT CTGGATGAAC AGACAGTTCA GTACACTTTG AACAAACCAG	540
AAAGCTTCTG GAATTCTAAG ACAACCATGG GTGTGCTTGC GCCAGTTAAT GAAGAGTTT	600
TGAATTCAAA AGGAGATGAT TTTGCCAAAG CTACGGATCC AAGTAGTCTC TTGTATAACG	660
GTCTTATTT GTTGAAATCC ATTGTACCA AATCCTCTGT TGAATTTGCG AAAAATCCGA	720
ACTACTGGGA TAAGGACAAT GTGCATGTTG ACAAAGTTAA ATTGTCAATC TGGGATGGTC	780
AAGATACCAG CAAACCTGCA GAAAACTTA AAGATGGTAG CCTTACAGCA GCTCGTCTCT	840
ATCCAACAAG TGCAAGTTTC GCAGAACTTG AGAAGAGTAT GAAGGACAAT ATTGTCTATA	900
CTCAACAAGA CTCTATTACG TATCTAGTTG GTACAAATAT TGACCGTCAG TCCTATAAAT	960
ACACATCTAA GACCAGCGAC GAACAAAAG CATCGACTAA AAAGGCTCTC TTAACAAGG	1020
ATTTCCGTCA GGCTATTGCC TTGGGATTG ACCGTACAGC CTATGCCTCT CAGTTGAATG	1080
GACAAACTGG AGCAAGTAAA ATCTTGCGTA ATCTCTTTGT GCCACCAACA TTTGTTCAAG	1140
CAGATGGTAA AAACCTTGGC GATATGGTCA AAGAGAAATT GGTCACTTAT GGGGATGAAT	1200
GGAAGGATGT TAATCTTGCA GATTCTCAGG ATGGTCTTTA CAATCCAGAA AAAGCCAAGG	1260
CTGAATTTGC TAAAGCTAAA TCAGCCTTAC AAGCAGAAGG AGTCCAATTC CCAATTCATT	1320
TGGATATGCC AGTTGACCAA ACAGCAACTA CAAAAGTTCA GCGCGTCCAA TCTATGAAAC	1380
AATCCTTGGA AGCAACTTTA GGAGCTGATA ATGTCATTAT TGATATTCAA CAACTACAAA	1440
AAGACGAAGT AAACAATATT ACATATTTTG CTGAAAATGC TGCTGGCGAA GACTGGGATT	1500
TATCAGATAA TGTCGGTTGG GGTCCAGACT TTGCCGATCC ATCAACCTAC CTTGATATTA	1560
TCAAACCTTC TGTAGGAGAA AGTACTAAAA CATATTTAGG GTTTGACTCA GGGGAAGATA	1620
ATGTAGCTGC TAAAAAAGTA GGTCTATATG ACTACGAAAA ATTGGTTACT GAGGCTGGTG	1680
ATGAGACTAC AGATGTTGCT AAACGCTATG ATAAATACGC TGCAGCCCAA GCTTGGTTGA	1740

CAGATAGTGC TTTGATTATT CCAACTACAT CTCGTACAGG GCGTCCAATC TTGTCTAAGA	1800
TGGTACCATT TACAATACCA TTTGCATTGT CAGGAAATAA AGGTACAAGT GAACCAGTCT	1860
TGTATAAATA CTTGGAACCT CAAGACAAGG CAGTCACTGT AGATGAATAC CAAAAAGCTC	1920
AGGAAAAATG GATGAAAGAA AAAGAAGAGT CTAATAAAAA GGCTCAAGAA GATCTCGCAA	1980
AACATGTGAA ATAACCTGTTG CAAAATATAA GAAAGGATTT AGTATTTCCC TTGAATGCTG	2040
AATCCTTTTT TACATTTGTA AAGAAAGATT CTAAAATGTA CGGACCCCA AAAGTTGGAG	2100
CCTCTTTTTG TCAGAATAGA GAAAATTTTT GTTAATTTTA CTTGTTTCCT ATTGCTTTCT	2160
CAGCTATTAT TTGTTATATT AAAAGTATAA TTATTTTTTA TTTATCAGAG TTAAGCATTG	2220
CACTTTCAGA GGAAGGAGTA TTTTTTAAAA AGAAAATGTA AACGTTTGCT CAAAAATGAA	2280
AGGATTTAGA AGTTTATGAA TAAAGGATTA TTTGAAAAAC GTTGTAATA TAGTATTCGG	2340
AAATTTTCAT TAGGTGTTGC TTCTGTTATG ATTGGAGCTG CATTCTTTGG GACAAGTCCG	2400
GTCTTGCGAG ATAGCGTGCA GTCTGGTTCC ACGCGCAACT TACCAGCTGA TTTAGCTACT	2460
GCTCTTGCAA CAGCAAAAGA GAATGATGGG CGTGATTTTG AAGCGCCTAA GGTGGGAGAA	2520
GACCAAGGTT CTCCAGAAGT TACAGATGGA CCTAAGACAG AAGAAGAACT ATTAGCACTT	2580
GAAAAAGAAA AACCGCTGA AGAAAAACCA AAAGAGGATA AACCTGCAGC TGCTAAACCT	2640
GAAACACCTA AGACGGTAAC CCCTGAATGG CAAACGGTAG CGAATAAAGA GCAACAGGGA	2700
ACAGTCACTA TCCGAGAAGA AAAAGGTGTC CGCTACAACC AACTATCCTC AACTGCTCAA	2760
AATGATAACG CAGGCAAACC AGCCCTGTTT GAAAAGAAGG GCTTGACCGT TGATGCCAAT	2820
GGAAATGCAA CTGTTGATTT AACCTTCAAA GATGATTCTG AAAAGGGCAA ATCACGCTTT	2880
GGTGCTTTTT TGAAATTTAA AGATACCAAG AATAATGTTT TTGTGCGTTA TGACAAGGAT	2940
GGCTGGTTCT GGGAGTATAA ATCTCCAACA ACTAGCACTT GGTATAGAGG TAGTCGTGTT	3000
GCTGCTCCTG AAACAGGATC AACAAACCGT CTCTCTATCA CTCTCAAGTC AGACGGTCAG	3060
CTAAATGCCA GCAATAATGA TGTCAATCTC TTTGACACAG TGACTCTACC AGCTGCGGTC	3120
AATGACCATC TTAATAATGA GAAGAAGATT CTTCTCAAGG CGGGCTCTTA TGACGATGAG	3180
CGAACAGTTG TTAGCGTTAA AACGGATAAC CAAGAGGGGG TAAAAACAGA GGATACCCCT	3240
GCTGAAAAAG AAACAGGTCC TGAAGTTGAT GATAGCAAGG TGACTTATGA CACGATTCAG	3300
TCTAAGGTCC TCAAAGCAGT GATTGACCAA GCCTCCCTC GTGTCAAGGA ATACAGCTTG	3360
AACGGGCATA CTTTGCCAGG ACAGGTGCAA CAGTTCAACC AAGTCTTTAT CAATAACCAC	3420
CGAATCACCC CTGAAGTCAC TTATAAGAAA ATCAATGAGA CAACAGCAGA GTACTTGATG	3480

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AAGCTTCGCG ATGATGCTCA CTTAATCAAT GCGGAAATGA CAGTACGCTT GCAAGTTGTA	3540
GACAATCAAT TGCACCTTGA TGTGACTAAG ATTGTCAACC ACAATCAAGT CACTCCAGGT	3600
CAAAAGATTG ATGACGAAAG CAAACTACTT TCTTCTATTA GTTTCCTCGG CAATGCTTTA	3660
GTCTCTGTTT CTAGTAATCA AACTGGTGCT AAGTTTGATG GGGCAACCAT GTCAACAAT	3720
ACGCATGTCA GCGGAGATGA TCATATCGAT GTAACCAATC CAATGAAGGA TTTGGCTAAG	3780
GGTTACATGT ATGGATTTGT TTCTACAGAT AAGCTTGCTG CTGGTGTTTG GAGTAACTCT	3840
CAAAACAGCT ATGGTGGTGG TTCGAATGAC TGGACTCGTT TGACAGCTTA TAAAGAAACA	3900
GTCGGAAATG CCAACTATGT AGGAATCCAC AGCTCTGAAT GGCAATGGGA AAAAGCTTAT	3960
AAGGGCATTG TTTTCCCAGA ATACACGAAG GAACTTCCAA GTGCTAAGGT TGTTATCACT	4020
GAAGATGCCA ATGCAGACAA GAACGTTGAT TGGCAAGATG GTGCCATTGC TTATCGTAGC	4080
ATTATGAACA ATCCTCAAGG TTGGGAAAAA GTTAAGGATA TCACAGCTTA CCGTATCGCG	4140
ATGAACTTTG GTTCTCAAGC AAAAAACCA TTCTTTATGA CCTTGGATGG TATCAAGAAA	4200
ATCAATCTCC ATACAGATGG TCTTGGGCAA GGTGTCTCTC TTAAAGGATA TGGTAGCGAA	4260
GGCCATGACT CTGGTCACTT GAACTATGCT GATATTGGTA AGCGTATCGG TGGTGTGCGA	4320
GACTTCAAGA CCCTAATTGA GAAGGCTAAG AAATATGGAG CTCATCTAGG TATCCACGTT	4380
AACGCTTCAG AAACCTATCC TGAGTCTAAA TACTTCAATG AAAAAATTCT CCGTAAGAA	4440
CCAGATGGAA GCTATAGCTA TGGTTGGAAC TGGCTAGATC AAGGTATCAA CATTGATGCT	4500
GCCTATGACC TAGCTCATGG TCGTTTGGCA CGTTGGGAAG ATTTGAAGAA AAAACTTGCT	4560
GACGGTCTCG ACTTTATCTA TGTGGACGTT TGGGGTAATG GTCAATCAGG TGATAACGGT	4620
GCCTGGGCTA CCCACGTTCT TGCTAAAGAA ATTAACAAAC AAGGCTGGCG CTTTGCATC	4680
GAGTGGGGCC ATGGTGGTGA GTACGACTCT ACCTTCCATC ACTGGGCAGC TGACTTGACC	4740
TACGGTGGCT ACACCAATAA AGGTATCAAC AGTGCCATCA CCCGCTTTAT CCGTAACCAC	4800
CAAAAAGATG CTTGGGTAGG GGACTIONAGA AGTTATGGTG GTGCAGCCAA CTATCCACTG	4860
CTAGGTGGCT ACAGCATGAA AGACTTTGAA GGCTGGCAGG GAAGAAGTGA CTACAATGGC	4920
TATGTAACCA ACTTATTTGC CCATGACGTC ATGACTAAGT ACTTCCAACA CTTCAGTGTA	4980
AGTAAATGGG AAAATGGTAC ACCGGTGACT ATGACCGATA ACGGTAGCAC CTATAAATGG	5040
ACTCCAGAAA TGCGAGTGGA ATTGGTAGAT GCTGACAATA ATAAAGTAGT TGTAACCTCGT	5100
AAGTCAAATG ATGTCAATAG TCCACAATAT CGCGAACGTA CAGTAACGCT CAACGGACGT	5160
GTCATCCAAG ATGGTTCAGC TTACTTGACT CCTTGGAACT GGGATGCAAA TGGAAGAAA	5220
CTTCTACTG ATAAGGAAAA GATGTACTAC TTCAATACGC AGGCCGGTGC AACAACTTGG	5280

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ACCCTTCCAA GCGATTGGGC AAAGAGCAAG GTTTACCTTT ACAAGCTAAC TGACCAAGGT	5340
AAGACAGAAG AGCAAGAACT AACTGTAAAA GATGGTAAAA TTACCCTAGA TCTTCTAGCA	5400
AATCAACCAT ACGTTCTCTA TCGTTCGAAA CAAACTAATC CTGAAATGTC ATGGAGTGAA	5460
GGCATGCACA TCTATGACCA AGGATTTAAT AGCGGTACCT TGAAACATTG GACCATTTC	5520
GGCGATGCTT CTAAGGCAGA AATTGTCAAG TCTCAAGGGG CAAACGATAT GCTTCGTATT	5580
CAAGGAAACA AAGAAAAAGT TAGTCTCACT CAGAAATTAA CTGGCTTGAA ACCAAATACC	5640
AAGTATGCCG TTTATGTTGG TGTAGATAAC CGTAGTAATG CCAAGGCAAG TATCACTGTG	5700
AATACTGGTG AAAAAGAACT GACTACTTAT ACCAATAAGT CTCTCGCGCT CAACTATGTT	5760
AAGGCCTACG CCCACAATAC ACGTCGTGAC AATGCTACAG TTGACGATAC AAGTTACTTC	5820
CAAACATGT ACGCCTTCTT TACAACTGGA GCGGACGTCT CAAATGTTAC TCTGACATTG	5880
AGTCGTGAAG CTGGTGATCA AGCAACTTAC TTTGATGAAA TTCGTACCTT TGAAAACAAT	5940
TCAAGCATGT ACGGAGACAA GCATGATACA GGTAAGGCA CCTTCAAGCA AGACTTTGAA	6000
AATGTTGCTC AGGGTATCTT CCCATTGTGA GTGGGTGGTG TCGAAGGTGT TGAAGATAAC	6060
CGCACTCACT TGTCTGAAAA ACACAATCCA TATACACAAC GTGGTTGGAA TGGTAAGAAA	6120
GTGATGATG TATCGAAGG AAATTGGTCA CTCAAGACAA ATGGACTAGT GAGCCGTCGT	6180
AACTTGGTTT ACCAAACCAT CCCACAAAAC TTCCGTTTGT AAGCAGGTAA GACCTACCGT	6240
GTAACCTTTG AATACGAAGC AGGATCAGAC AATACCTATG CTTTGTAGT CGGTAAGGGA	6300
GAATTCAGT CAGGTCGTCG TGGTACTCAA GCAAGCAACT TGGAAATGCA TGAATTGCCA	6360
AATACTTGGG CAGATTCTAA GAAAGCCAAG AAGGCAACCT TCCTTGAGAC AGGTGCAGAA	6420
ACAGGCGATA CTTGGGTAGG TATCTACTCA ACTGGAAATG CAAGTAATAC TCGTGGTGAT	6480
TCTGGTGGA ATGCCAACTT CCGTGGTTAT AACGACTTCA TGATGGATAA TCTTCAAATC	6540
GAAGAAATTA CCTAACAGG TAAGATGTTG ACAGAAAATG CTCTGAAGAA CTACTTGCCA	6600
ACGGTTGCCA TGAATACTA CACCAAAGAG TCTATGGATG CTTTGAAAGA GGCGGTCTTT	6660
AACCTCAGTC AGGCCGATGA TGATATCAGT GTGGAAGAAG CGCGTCAGA GATTGCCAAG	6720
ATTGAAGCTT TGAAGAATGC TTTGGTTTCA AAGAAGACGG CTTTGGTAGC AGATGACTTT	6780
GCAAGTCTTA CAGCTCCTGC TCAGGCTCAA GAAGGTCTTG CAAATGCCTT TGATGGCAAT	6840
GTGCTAGTC TATGGCATA ATCTTGGAAT GGTGGAGATG TAGGCAAGCC TGCAACTATG	6900
GTCTTGAAAG AACCAACTGA AATCAGGA CTTCGCTATG TTCCGCTGG ATCAGGTTCA	6960
AATGGTAACT TGCGAGATGT GAAACTTGTT GTGACAGATG AGTCTGGCAA GGAGCATACC	7020

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TTTACTGCAA CTGATTGGCC AAATAACAAC AAACCAAAAG ATATTGACTT TGGTAAGACA	7080
ATCAAGGCTA AGAAAATTGT CCTTACTGGT ACCAAGACAT ACGGAGATGG TGGAGATAAA	7140
TACCAATCTG CAGCGGAACT TATCTTTACT CGTCCACAGG TAGCAGAAAC ACCTCTTGAC	7200
TTGTCAGGCT ATGAAGCAGC TTTGGTTAAG GCTCAGAAAT TAACAGACAA AGACAATCAA	7260
GAGGAAGTAG CTAGCGTTCA GGCAAGCATG AAATATGCGA CGGATAACCA TCTCTTGACG	7320
GAAAGAATGG TGGAACTCTT TGCAGATTAT CTCAACCAAT TAAAAGATTC TGCTACGAAA	7380
CCAGATGCTC CAACTGTAGA GAAACCTGAG TTTAAACTTA GATCTTTAGC TTCCGAGCAA	7440
GGTAAGACGC CAGATTATAA GCAAGAAATA GCTAGACCAG AAACACCTGA ACAAATCTTG	7500
CCAGCAACAG GTGAGAGTCA ATCTGACACA GCCCTCATCC TAGCAAGTGT TAGTCTAGCC	7560
CTATCTGCTC TCTTTGTAGT AAAAACGAAG AAAGACTAGT ATTTAGTAAA ACCTCTTAAC	7620
AAGATTACGG AAGCAGTCTC TATCTTTTCC AATGAGGTTT ATAGTACAGA AAAAGCCTGA	7680
GAAGATGTCT TCTCAGGCTT TTGTTAAGCA CATAAATACA ATAGTGCTAT GACAAAATCA	7740
CCCAGAAAAA TCTGGGTGAT AAATGTTATG GTTGTGCTGG TTGAGGATTC TGATTTTGTT	7800
GATCAGGGGT TGTATTGAT TGTGCGTAT TATTGTTAGG ATTGGTAGTC GTACTATTAT	7860
TTGTGCTTGG AGTGGTTGAG CTAGACTGTG AAGTTGAACT ATCTGATGAT GAGCTTGAAC	7920
TTTCAGTTGA TGGGGGTGT TGTGGAGCAG GTGAGTTCCA CGTAGAACGA GCACCATTTT	7980
TAAATACGAA TTCTCCATTT CTGTAGAGCC CCTCTGGTAT ATTCCAATCT TCTGGATTGC	8040
TTCCCTTCAGA CAGGTAGGTC ATCATAGAGC GGTAACTTT GGCAGCGACC GTAAGGCCAT	8100
TGCCTACAAG TGGTGTGAGA CGGTTAGAAT AGCCTGTCCA TACAGCCATT GAATATTTAC	8160
GCGTATAGCC AGCAAATAGT TCATCAGGTG CTACAAATTG AGAGGTCTTG ATGTGGTTT	8220
CAATTTCCCTC GTCTGTATAG TTAGAGGTTT CTGTTTACC AGCCTGAGGG AGCCAAGCAA	8280
GATAGGCATT TCGTCCAGTT CCATAAGTCA AGACTGTTTT CATCATGTCG GTCATCATAT	8340
AGGCTGTCGT TTCCTTCATG GCACGAGTTC CGACATTAGA GAACTCTTT TCACTCCCAT	8400
CACTAAAGAC GACTTTATGG ATATACATTG GTTTATAGTA AGTTCCACCA TTTGCAAAGG	8460
CAGCGTAAGC AGCAGCCATC TTTTCACTAC TTGCTCCATA TTTTGTGCT GATTCGGTTG	8520
TGTTACTTGA AATGGCATT T GAGTAGTGAA TACTTGGGTA GTCGATTCCCT AGACCATTTA	8580
GGAAAGTCTT GCGCGGTTG AGTCCGACCT TGTTTAGAGT TTCCACGGCT GGGACGTTTC	8640
GCGATTGTTG CAGGGCGTAT TGCAAGGTGA TGTGCCAAA GTAGCCCTA TCCCAGTTAT	8700
AAACAGGAGT ATTTGTCCCA GGGTAGTTAT AGGGCTCATC GTGAACGATA GTAGCAGTTG	8760
AATCGTAGAC ACCGTACTCC AAGGCAGGAG CATAGTCTGT GATCGGTTTC ATAGTTGATC	8820

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CCCAGTCGCG GTTTGTTTCT ACTGCTTGGT TAATTCGGAA GGAAACATTA CTTGACTGAT	8880
GGCGTGCTCC TAGCTGGGCA ATGACTTTAC CGTTAGAAAC ATCAACAATG GTAGAAGCGA	8940
CTTGCAATTC ATCGTCTGGA TAGGCAACGT ATTCGTCTGT ATTGTAAATA TCCCACAGAT	9000
GTTTTTGAGC TTCTTGGTCT ACATTTGTGT AGACATCCAT CCCAGTTGTG AGTAGGTTAT	9060
AGCCTGTTTC TTCTTCAACT TGATTGATGA CTTCCCTGAG GTAATTATCC ATGTAAGCAG	9120
GGTAATTACT TGCTGATTG AGACTTTGTA GTCCATCAGT AATTGGTGTA TTGACTGCTT	9180
TCTCATACTG TTCAGCAGAG ATGTAGCCTT GATTTTTCAT TTCAGATAAG ACCAAGTTTC	9240
GGCGGTCTTG GGCTGCTTCT GGATGTGAAT AGGGGTCATA TTGGTTTGGT GCCTGAGGCA	9300
TTCCAGCCAG CAAGGCTAAC TGAGGTAAAC TTAAATTATT GAGGTCTTTA CCATAGTAGT	9360
TTTGAGCTGC TGCTGCATT CCATAGTTCC CATTAGACAT GTAGACCTTA TTTATATAGT	9420
AGGTCAAGAT TTCTTGCTTG GTTGCTTTTT GTTCTAACTG AATCGCTAAC CAAGCTTCCT	9480
GAGCCTTACG AGAAATAGTC TGGTCGGAAG TCGAAGTTGA AAAGTAAGTC AACTTAATCA	9540
ACTGTTGGGT GAGAGTTGAT CCACCTTGA GGAATTGCT TTGCAGATTG CGCAAGAAAG	9600
CTCCCAGGAT ACGGATGGTA TCAATCCCCC TGTGGTCGAA GAAGCGATGG TCTTCGATAG	9660
AAACGATTGC CTTAACCAAA TCTGTGGGAA TATCATTAGC TTGGGCATTG ACGCGGCGTT	9720
CAGAACCCAA GTCAGCAATG AGTTGATTTT TATTGTCGTA GATTTTACTA GAAGTTGTTG	9780
CAACTAGTTT ACTCTCGGAT AGGCTAGGAG CCTTGCTAAC GTAGTAGAAA AAAACTCCTC	9840
CGCCTAAGAC AATGGCTGCG ATAACCAAGC TTAAGAAGCT AATGCTCAGA TACTTGATTA	9900
GGCGCAGAAT CGTTGGTTTG TTCATCTTGT TTTACCACCT AATAAATGTT CTTTGATAAC	9960
ATTGAGATAA GGAATTTGAG GGAAGGCACC AGCCTTGATT TCATATCCAT ATTCTCGAAT	10020
ATATTCAAGT GGCATTGATT TTTGTCCCTT ATCTTGATGA TAGAAGCGAA TCAATCGAA	10080
TGCCGGCAAT AAGTAGGTTT CTTGCTGAGA AGAAAAGTGA AGAAGGACAA AGCAGATTCC	10140
TTGTTGGGCA AGGACTTGTT CCATATGCTG AATCTGATGT GGATGAAAAT TTTTCATCGG	10200
AATCGCACGT TTTTGTTTTG TTTCCCTGAC TTCAAAGTCG ATGTAATATC CATTATAAAC	10260
GCCAGAATAG TCCGTCGTTG AAGCTTGTCG AAAATAGGCT TCAACAATCT TGGCAGGACT	10320
TCGTTGTGGA TAGTCCACTT GTACGATTTG AATAGGAGTT GGTTCCTTAT GTATAACAGC	10380
CAAGCCCTGA GACAAATAGT AGTCGTTGGT AGCATTGATC ATCTTTTCAA AGGGTACCGA	10440
GCTCGAATTC GTAATCATGT CATAGCTGTT TCCTGTGTGA AATTGTTATC CGCTCACAAT	10500
TCCACACAAC ATACGAGCCG GAAGCATAAA GTGTAAAGCC TGGGGTGCCT AATGAGTGAG	10560

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CTAACTCACA TTAATTGCGT TGCCTCACT GCCCGCTTTC CAGTCGGGAA ACCTGTCGTG	10620
CCAGCTGCAT TAATGAATCG GCCAACGCGC GGGGAGAGGC GGTTTGCCTA TTGGGCGCTC	10680
TTCCGCTTCC TCGCTCACTG ACTCGCTGCG C	10711

(2) INFORMATION FOR SEQ ID NO: 146:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11887 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 146:

TACATTCAAT CCATCGGCTA CTCCATAATA CTTAGATAAA ACCATAGCTG AAGTCGAATA	60
CGGACTACTGT AAAGTATTAT CAATTTTAAT CAAATCATCA TTACCGATAA TACTTCTGAT	120
TGCTTTTGGT AGTATGAACC ATACGTGGT GAAATCTCAG ATAATGAAGA ATCATTAGAC	180
TCTGGACCTT TTTCTAGTGT CTCACTTACC TCATATTCTT CACCTTACT AGAAATAACA	240
CTCAAAGCAG AACTGTGCGA TAACTGGCTA GCCAATAAAG TACTCGCAAT AATTGAAATA	300
CCCAATTTT TATAACAGT TTTCTTCATT ATGTATCCT CCTAATGTAA TTATAGCGTA	360
CTATTCTAAA TTTCTTAATC TACTATAGAA TCAAGAAATC TACCACCTTC TTTAAATACC	420
CTCCATTATC ACATAAACAC GTAACTTTT CAATTAAATGA CTGCGCTTTT CAATCAGCT	480
AGAGGTACTT GCTTGCTTCT TTGATACTAA GTTCAGCCAT TCTTTCCTTG TTTTCTCAA	540
TAAAGCATGT TACCCAAGTG GGATTCGTTT TGGAGTAGTC TCGCAGAGTC CAGCCAATGG	600
CTTTATTGAT AAAAAATTCT GTTGGTTCA AGTTATGAAG GAGAATCTTT TCCATTAATT	660
GAGTATTGGT CTTCTCTTTT CTTAACAAC GTTGGTCAAT AGCGACACGT CTCAGCCAGA	720
TATTATCTGA TAGGCTCCAT TTTATACTCA ATGAAAATCA AAGAGCAAAC TAGGAAGCTA	780
GCCGCACTTG CTCAAAACAC TGTTTGAGG TTGCAGATAG AGCTGACGTG GTTTGAAGAG	840
ATTTTCGAAG AGTATTAAGA TTATTCTTC TAGTTCAGGG TGTTCATACA CCAAACCTCC	900
TACTACTCGA TCTAGGATAT CTACCGTGT CCACAAGGAT TTTGTCACGA CTAAGTCTC	960
TAGCTTAGGC AAATCGGTTT CCTTTAGATA AGACTGCATT GCTTTCAAAT AGTTAGCAGC	1020
CACATATTGG TATTTTCTAG GATCCTTTT CCAGCAAGTG TCTGCAAAAT CCCAATCGAT	1080
AATCTTTGTT TTTTTCGCTT CTGGAAAATA TTTTATAGAG TTTATTCTT TCAGGCACCG	1140
CAATACCTAG AAAAGAAAAT TGATGGCGCA TATAGGCTTC CATGGACCTT GCTTTTTTAG	1200
AGTCTTTTGC TGCTTCTAGC TCCTCAAGTA AATCTGCTAA ACTCATCTAA AACTCCTCTT	1260

GCCCCACCAA ATGGTGCTGA AAGGCATAGA CAGCCGCCTG GGTACGATCG CTGACTTCAA	1320
GTTTGGCAAG AATATTGGAC ACGTGGGTCT TGACCGTCTT GAGAGAGATA AAGAGGTCAT	1380
CTGCGATGCG CTGATTTTCG TAGCCCTTGG CGATGAGTTG GAGAACATCT CGCTCACGCG	1440
CAGTCAATTC TTCATGAAGT TCCATATGAT TGCGGTGGTA TTCAACCTTC TTGCTAACCT	1500
CTTGCTCAAT GGCCAGCTCG CCAGCAGCTA CCTTACTGAC GGCATGAAGC AATTCATCTG	1560
CACTAGAAGT CTTGAGCATA TAGCCTTTGG CACCAGCATC TAAGACTGGC ATGATTTTTT	1620
CATTGTCCAA ATAAGAGGTC ACAATCAAAA TCTTGGCTTC AGGCCATTCT TTAAGGATTG	1680
CTAAGGTCGC GTCAATCCCA TTCATCTCAG GCATGACAAT ATCCATGACA ATGACATCTG	1740
GACGCGTTTC CAAGGCCAAG TCAATCCCTT GAGACCCGTT GGACGCCTCA CCCACAACCT	1800
CTACATCGTC TTGGAGGTCA AAGTAGCTTT TCAAGCCCAA TCGGACCATT TCATGGTCAT	1860
CTACTAGTAA AATTTTCATC TTTACTCCTT TATCATTCTT TATCTAACAG GGGAATACGG	1920
ATATCAACCG CCAGCCCTTG CTTGGGAGCT GTCAAGAGTT GAAGTGTTC AGCCATATCT	1980
TCAACCCGCT CCTTGATATT TCGCAGTCCA TAACTCAAGT CGTCTAAGCT CCCTAACTGG	2040
AAACCAATCC CATTGTCCAC CACCTTCAGT TGCAATTCAA CATCTGTCTG ATAGAGGTAG	2100
ACATCTAGGC AAGATGCCGT GGCATGGCGG AGGGTATTGC TAATCAACTC TTGCAGGATA	2160
CGGAAGATAT GCTCCTCGAT TTTCTTAGGC AATTTCGTCA TATTCTGCTT GAGACTAACC	2220
CTAAGATCAC TCTTGTCTC AAGCTCTTTT AAAAGAAATT GAATCCCTTC TATCAAGCTC	2280
TTCTGCTCCA GTTCAACTGG TCGCAAATGC AAGAGCAAAA CCCGCAAATC CTTCTGGGCT	2340
GTTTCTAAAA TAGCTGTGAC ACTCTGCAAC TGGGTCTGCA TCTTTTCTCT ATCCAATTTC	2400
AAAGCCTGCT GACTGATACC CGATAAAATC ATGTGGGCCG CAAACAACCT CTGACTGACT	2460
GTATCGTGCA AATCCCGAGC AATTCGCTTC CGTTCCTTCT CGATGATTTC CTCTTCCTGA	2520
GCAAGGCTCT GATTTTCAGC TTTTGAAGA GCCTCTGTCA AAAGGTTAAG TTTACCTGAT	2580
AAGGACTTGA AACTGGCATC CAAATCTGGA TCTGCAACCT GAACCACTTC TTGCCCTGCT	2640
AATAAACGCT TGAGATTAGC CTGCATTTTT CTTAGAGAAA GCTCTTCGAT CCCTCGCCAA	2700
AACAGGGCTA AGAGACAGGT CATGGACATG CTGAAAACCA ACAATAAAAA GACAAATTTT	2760
TCTGTTTTTT CGACATCGTG CAAAAAGATA GACCAGTCAA AATCAAGTAT TTCCAGCAAG	2820
CTGTGGGAGA AAAAAAGAC AAATAGGAAG GAGGTGAGAG CAATAATGAC ATAGGCTTGT	2880
TTTTTCATCC TCTAACCACC TCCACATCAC CAATCATAGT GGTCAAGAAA ATCTTGACAC	2940
TCTGTGTACT CTTGAGATAG TCTTTTGTTC CTTGATGATA GTGTTCATTG CGGAGGGCTC	3000

980

GCTTGGGCTG	GTTGAAAAAA	ATCAAATCCC	CATAGAGACA	GTTAACGCTG	AGACTGACTT	3060
CCACATCTAC	AGGTACGATG	ATTTTGGTCG	TTCCTACCAT	CTTTCTGAGG	ATAATGACAT	3120
TGTCATGATT	GGTTAAGATG	ACCCTCTCCA	GATGAATAGT	GTCTTGCCCC	ATGAAGCGAA	3180
AGAGATTGAT	ATCATCGAAT	TGGCAAGTCT	GGTAGCTTGA	AAAATGATGA	AGATTTCCAA	3240
ACCAACGATT	TTTCTCCTTC	TTAACCGTCA	CGACCTCTTC	AAAAACCAAA	TTGGTCTGCT	3300
CTTTTCTCTG	GTTTCATCATC	GGGTAAAGAA	GAAAGAGGCT	ATAGATAACC	GCAACAAAAA	3360
TAGCTAGAAT	CACAAAAGGA	TTGAGCATAA	CGATGAAAAA	GAAGAGAATG	GTTGCCGCTA	3420
CTAAAAAGAAG	ATTATTTCCC	TCTTTACCAG	TGTAGTAGCG	AATCAAAAGC	AAAAAGAGGA	3480
ATAGTATCAG	CAGAAAACGC	GAAAAATGCT	CTGATACCAT	CAAATCAGA	GTCCTGTCA	3540
GAAGACAGGC	TTTGATAAAT	AAAAAGATT	TAAATTTTCT	CATAGGTTCA	TCCTCTCCCT	3600
TCTATTTTAT	CACAATTCAA	AAAAGTCACC	TCAGTCTGAG	GATGGAAAAA	AGGCGCTGGT	3660
TACGCCTTTT	TCATCTGATC	CTTTGCTTCT	TTTAATTTTC	CATAAAGAAG	ATAGTCTACT	3720
TTTGTAGAT	CTGCTATGGT	GGCAGAGTTA	AGGGAACACA	TAATCAAGCG	TAGATCTGCT	3780
TTCCAGCCTT	GGACAATGCC	AATCACTTCT	TCAACTGTGT	AGGTTTCAAC	CAATTCAGA	3840
ACGGTTCGTG	ACAATCCCAC	AGCCTTAGCA	CCAAAAACCA	AGCACTTAAT	CATATCCAGC	3900
GGATTCCGAA	CCCCTCCACT	AACCAAGAGT	TCGACCTTAT	CTTTCCATTC	TTGGGCATTG	3960
AGAAGGGGCT	GCATGGTAGA	CTGACCCCAT	TGATTGAGGT	AATCACGCTG	GCCACTACGA	4020
CGGTTTTCGA	TATAGGCAAA	GCTGGTGCCA	CCACGACCCG	ATAGGTCCAC	TGTACGAACA	4080
CCGAATTCAT	AGGCTCTTTC	GATTGTCTTG	GCATCCATTC	CAAAGCCCAC	TTCTTGAGG	4140
ACAATAGGAA	CGGGAATTG	CTTGCTATAA	TCTGCTAGAT	GCGATTGCCA	GCTTCTAAAC	4200
TTCTTTTCTC	CCTCGGGCAT	GAGTAATTCC	TGCATGACAT	TGACATGCAC	TTGCAATAGA	4260
ACAGGATTCA	TCTCTTCTAC	AGTCTGAAGT	CCTAACTCGA	CAGGCTTGTC	CAATCCAATA	4320
TTGGTTCCAA	GGAGGAGATT	GGGATGACTA	GACTTGACAG	AAAAAGAATC	ATCCGTTGGA	4380
TTTTTGAGGG	CTGCGCTATA	AGAACCCGTT	ACAAATAAAA	TACCACAGGA	TTCCGCCACC	4440
TGAGCCAGCT	TTTGATTGAT	TTCTCTTCCC	TTATTACTTC	CACCAGTCAT	GGCATTGATA	4500
TAAAAAGGAA	AGTCCCACTT	TCGACCAGCA	AACTCTGTCT	AAAGATCGAT	TTCATCCAGA	4560
TTGTAAAGAG	GCAAGGAAGA	ATGAATCAGC	TCCACCTCAT	CAAAGCTATT	ATAGGAACTT	4620
TTCTGCTCAA	GGGCATAGAG	GATATGCTCG	TCCTTACGAT	TTGTGTCAT	GTCCTATCCT	4680
TTCTTGATAT	AAGAGCTCAA	TCCCCAGATC	GGCCCAACGA	TTTTTTAAGG	TTTTGGTTGA	4740
TTGCGCATCA	AAACTCAGGG	CGATGCCACA	GTCACCACCA	CCAGCACCAC	TACTCTTGCC	4800

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AACGGTCTGC AAATCTTGAC TGGCTTCTTT CAACTGTCTA AGCAAAGGCG TGTAAATATC	4860
TGTACTCAAG CCTTCTAAAA GCTTGCTGGC TACTTCTACT TGATCGATAA TCTTTTCTGA	4920
TTTCCCCTGT TCCAAGGCTT CTACCAGAGA AGTCACCGTT TCTTTTGAGG AAGTTAAAAA	4980
ATTTTGATTG ATATTTTGCT TGATTTGCTG GACCATGTGA CTCGATACAG CCACTTCCTT	5040
GGTCCATCCC ACTAAGAAAT CACATTCTAA AGTTGGTTTC ACTTGTGAAA TTGAAAAGCC	5100
CCAATCACGC TCCAGAACTG TCGCCAAGTT TTCTTCTTCT AACCAAGCAG CCACCTTCTG	5160
GCGATCAAAT GACTGGTAGA GAACCAATC CTCTGCCACA ATACAGGCAA GGTGCCCCAT	5220
GGAACCATTG TCTCCTCGCT TAAGCAAGAC AGCGCTAGTC AGCTTGAACA AGAGCTCCTG	5280
ATCAACAGAA ACATCATACA GAGCCAGTAA AGCCTTGACA ACCAAGACAA CGACGCTGCC	5340
ACTAGAACCT AGACCAAAT TTTTCCCTTC TCGTTCCATT TTGCCACAGA TTTCTAGAGA	5400
AAAAGGTCTT AAATTCTGAC CACGAACAGC GAGGAAGTCT CCCATCAAAG CAATCGTTTC	5460
TTGAATCAAG CTATAGTCAG GATTAGGCCT TAAGTCCACT GCGAAATCAA ACATATCTGA	5520
ATAGATACGG TAGCTGTCAG AAAAAGCAAT CTCAGCCCTC ATATAGATGG GAATATCCTT	5580
TATCAAAGCT AACTGCCCTG GCTCTAAAAT AGCATATTCA CCTGCCCAAT AGAGTTTTC	5640
GCAAGTTTTA ACAGCAATCA TCTTGACTCA AATCCTTTGT TTTTGACACA ATCAAGCGAT	5700
AACGATGACC GAAAATTTCT GATAAATGCT CCAAGTCTTT CTCCTGACAG AAGACCTTAA	5760
CATTGGGACU AGCATCCATG GTAAAGTAGC AGGCCTCTCC TTTCTCACGA AGCTGGCGAA	5820
CAAAGGCCAT AGCCTCATAA GAGGCATCCG TCAGATAAGA AAAGGCTGGA CTAGCAGTCT	5880
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CATTTTCCTT GAGATAAATC AGCATATCCT GATAGTCCTT CTCAGACTGA CGAACCAGT	6000
CGTCGAAAGT CGTCGAGGTT TCCACACAAA GTTTCATCCC GTCACGGCTA GAGATTGGTT	6060
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AAATTTCTCC ACTATCCTTA TCCCAGGCTC CTAGTGGTCC ATAAAACTC CGAGAAGAAG	6180
AACCTGAGGC AAATTTGGCT TCCTGTGCCA ACTGACTTCT ATCCAATCCA AGCTTGAAAT	6240
AAGCATTACA AGCCTTGACC AGGGCGGACA AACCCTAGA ACTTGAGGAC AGACCCGCTG	6300
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GGTCAATAAT CTTACTCATC TTGGCATGCT CGACCTCATT TTGTAGCTGA CCATTGATGT	6420
AAAATTCGTC AGCTGTTACA TTGGCTGGTA AAGGCGACAA GGTCGTCTCT GTATACATAT	6480
TTTCCAAAGT TAGAGAAATA CTGCTAGTAG CAGGCACCAT CTCTTTTTCT TTTTCTTTC	6540

982

CCCAATATTT GATAATAGCA ATATTTCGCT AGGAACGTAC TGTTACAGGC TCTCTATCCA	6600
TGTCTGAACA GCTCCTTTCT CTTCTAATCT TTCTGCTAGT TCTTGTGCGT GTGTCAAATT	6660
GGTTACCAAG GCTATGATAC AACCTCCTAG CCCACCACCG CTCATCTTGG CACCCAGAGC	6720
ACCATGGCTA AGAGTCGTTT CAACCAAAAA GTCTGCCTCA GGGCTACTGA CTCCAATTTC	6780
TTTTAAATGT AAATGCGCTT GACTGAGGAT TTGTCCCAGT CCTTCAGCAT CTTTTGTGA	6840
AATCGCAACT TCTGCTTGCT GGGTTAATTC TCCCAAGGCA TGCAAAAACG GTAGGGCATC	6900
CTTGCCCTTA TTTTGAACCA CTTGGATGGC TTCACGAGTA TGACCATAAA CACCCGTATC	6960
GGCAATCACC AAATAGGCGG ATAAATCCAT CTCAAGTTCT GTAAATCCTA CGTTCTTGAT	7020
AAAGCGAATA GGTTGGTCAC TAAGACAGGT CTTAGCATCC AAACCACTAG GATTCAATG	7080
GGCAATCATT TCAGCTCGAT TGACCAAGAT TTCTAGTACA TCATGAGGCA GATCAGCCTG	7140
ATAGTAGTCA AATACTGCAC GAATGGCCGC TATGCTGATA GCCGCTGACG AACCCATCCC	7200
CCGTTTCTCA GGGATAGCCG AGTCAATCTC ACAACGAATG CAGGCTTCTG TGATATTCAA	7260
ATACTCCAGT GAGGCATAAA CCGCCATGGA CAAGGTATCC TCCTCATAAA GGCGCCAAGG	7320
ACTCTCTGCA GGAACACCT TACAGGTCAC CTCCACCTCC AAAAGAGGCA GGGAAATGGC	7380
AGGATAACCG TAAACGACCG CATGTTCCCC TATTAAAAAT ATCTTACTAT GTGCCTGACC	7440
GACACCAACT TTTTTGTCA TTTTTCCTT TTAGTAGACG AAAAAACGTC TTATTTTCA	7500
TACAAGTATT AATTCCTTCC TATCTATTTT ATTATATTTT CACAAAAAA GCGATTGTTT	7560
CCATTCAAA TCGCTTCTTT CATTATTGAA CCCATTCGCC ATTATAGTTG ACAGAATAGC	7620
CATCTACGGT CGTATTCAC TCCAAGGCAC CTGAGCGCTA TAAGCGTAGT ACCATCTGCC	7680
ATTGACCTGG AACCAACCTG TCGTCATAGA ACGACGAAAG AAATCCATA CCATTAAGTA	7740
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CTCATTAACA AGTACTCGTT TCGGCCATTT ATAGGTGCGG TGTTCGAGA AATAGGGTTC	7860
AATCTTCGCC CATTCTTGAT CGTTTAAATC AGTATCATAT GCTTTCGTA TCATAACTCT	7920
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GGAAAACGCC TTATGAAGTA TGCTACGGGA AAGTTATGCA CTTAATTGA CAATTCAAGA	8040
TGTAAAAATA TATACTATAG TAGATTGAAA CTAGAATAGT ACACCTCTAC TTCTAAAAA	8100
TTGTTAGAAA TCGATTTGAC TGTCTGATC GATTTATCCT GTTATTATCT CATTTACTA	8160
TAATATTTGA TAAGTTATCC TAAAAGTATT ATTATGTTGT TGTGTTATAG ATTGATTGAA	8220
TCTAACTAAA GGATCCTATT CAATTACTAG AACTATCACA TACTCAAGGT CAGCTCACAG	8280
ATGAGCAACT ATTTTGGTTA CAATGTCTAC TAAATTTAAG TCAAAACAAAT AATTTAGTCA	8340

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AAATTAAAAA AATAGAGGAA CATAAATATG ATTACAAAAC AGAATGTAAT AGTGTCTAC	8400
AATTTTACT AGATAAACT GTAAATTCTG AAGGAAGGAT CACTTCTTCA ACAGAATTG	8460
GAAATTCGT AAGTAATTTA TCATTCCAAC ACGGAATAGC TGGACTACTG TTTCCTCTAA	8520
ATAAATTGTA CCCCCAGAA CTGGATTCTA AAATACTCTC TATCATCAAG AAGGCAGTGA	8580
CAATTAGAAC GACACACACA TATGAATATC AATACTCACT GCTATTTGGT GATGCAGGCT	8640
ATCTATGGTT ACTCCTACAT TTATTTCTA TCAGTAAAAA TCAATACTAT CTACAATTAG	8700
CAACGTCAC CGCTAAAAA TTAATAGAGA ATTATGATAC TCTAGAGGAA ATAGACTTTG	8760
CATGGGAAA ATCTGGTGTC CTATTATCAT TAATAAATA CTATCAATTT ACCAATGACA	8820
ATACTCTTAA AATTTTCATC CACAATAGTA TAGGGGAAAT TTATCATTAT TTCCTACAAA	8880
GAGATACAGC CAAAGAAAGC ATTTTAGACT ATAGCTTTGC TCATGGATAT TGTGGAATTG	8940
CATATGCTTT ATTTGCCTAT TCTAAAGTCT TAGAACCTTC TATGTTTAT AATGATCTCC	9000
ATACATTCCA TACTGAATTA AAAAAATTAT TAGAAAAAGT TACTTCTAAT ACTGAAAAAT	9060
TAGGAAATTT ACAACTTCTT TGGTGCAAAG GAATTTCCGG AATAATCTTA TATCTTTGTA	9120
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ACTTCGGAAT AGGAAGCATG GGGTATATTG GTGCTATTTA AATAATAAAT TCCCATTCTGA	9420
TGTGCAGACA TAAGGAGAAA AGTATGAAAT TATTTTGAC AAACAACATA TATAGACAGT	9480
TGCTGCTAAA CAGCTGTTTT TCATCATTCG GCGACAGTAT TTTCTACCTC GCCATTATCA	9540
ATTATGTGGC TCAGTACAAT TTCGCTCCGC TAGCGATTTT ACTGATTTCC ATTTAGAGA	9600
TGGTTCCTCT ACTATCGCAA CTCCTTCTCG GGATTCTAGG AGATTTTCAA GAAAATAGAG	9660
TCAAAACACG ACTCTGGATT GCCAAAATCA AAATCCTGCT CTACGCTATT TTGACAGTAT	9720
TTCTCGTCTT GTCGCCCTTT TCATTAGTTT CAGTCATTAT GATTGTCATC ATCAACCTCA	9780
TCTCTGACAC CTTGAGCTAC CTGTCTGCCT ACATGATGAA CGCCCTCTAC ATCAGTGTA	9840
TTAAGGACGA CCTGCATGAT GCCATGGGGT TCAGGCAGTC TCTGATGAGG GTTGTCCGTA	9900
TTGTGCCCAA TCTGGCTGGC GCATTCCTTA TCAATGTTAT AAGTATTCAA ACTATTCCC	9960
TTATCAACAC TCTGACTTTT GTCATGCTCT TTTGGGCCT GTATGTTATT CGACATACCT	10020
TGTATGAGGT TGA AAAAAGA ATTGAAATGT CACATACAGC ACTGAGTTTT AAGAAATATT	10080

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TTCAACATCT TAAACAGTCG CTGGCTGTGC TCCTGAGGTT AAAAGATACC GTCATACTAC	10140
TGTTTCTGAC GACCAGTATG ATTGCCATCT TGGATGTGTC CCCTCGGCTG ATTGCCCTCC	10200
GCTTCATCCA ACAGACACTA GCACAACGA GCATTGGGCA ACTCCTCGCC CTGCTCTCCA	10260
TCATCATGTC TTGTGGAGCT ATCCTTGGCA ATATGACCAG CAGTAATCTA TTTAAAAATA	10320
TCCGTTTCAC GCACCTCTTG GTTTTCTGTG AGATTTCCTT ATTGACTCTA ATAAGTAGTA	10380
TCCTTTGTCA AGCCTATATC GTAATTTTCA TGACCAGTTT CATCAGTTCT ACGATTATCG	10440
GCATTCTCAG CCCTCGCCTA CAAGCAGCTG TCTTTGCCCA TATCCCCAGT GACAAGATGG	10500
GGACGGTGGG CTCTGCTCTG AGCACAGTGG ACATTCTCGC CCCGTCCCTG CTCTCCCTAT	10560
TAGCCCTATC CATAGCATCG GCGTTTCGG TGCAGTTAGC ATTGATATTT TTGTATCTTA	10620
TTTAAATGTC TCTTATCTTT TGTCAATGGT TAGTCAAGTT CAACACTCAT AACTAACGAA	10680
AAAGCATGTG TAGATTTTCA ATGCTTTTAA TCTCCCCAAT CGTCAGGTCA AGTACAACAA	10740
AGTCACTTCT TTGATTAAGC GAGTGTCTA ATATAATTAT AAGCGCCCTG TCATTACCGA	10800
ACCCATTTCG CATATAGTT GACAGAATAG CCATCTACGG TCGTATTCAC TGCCAAAGCA	10860
CCTGAGCTAT AAGCATAGTA CCAGTTGCCA TTGACCTGGA ACCAACCTGT CTCATGTCT	10920
CCATTACCTG CATTTAGGTA GTACCAAGTT GAACCATCTT GATACCAACC AGTTGCCATA	10980
GCTCCTGATG AACGGAGATA GTACCATTG TTCCCAAGGT TTTGCCAACC TGTTTTCATA	11040
TCGCCATTTG GGTGGTCTAA ATAAATACCA GTGGTACCTT CCGATACCA GCCAGTGGCC	11100
ATTGCTCCTG AGGAACGGAG GTAGTACCAC TTATTACCTA GATATTGCCA ACCTGTTTGC	11160
ATAATACCAG TTGTTGGATC TAGGTAGTAC CAAGTGAAT CATCGTTTAT CCACCCCGCA	11220
CGTCTTTCAC CACCAAGGTA GTTTTCTCCA TTAATTTCCG TCTTAGCTAG ATAATACCAG	11280
TTAGACTGAT CATAAGCCA ACCTGTCTCT AAAGAATGAT TTTGATTAA GTAATAGTTC	11340
GTATAATAAC GCTTCTCTT TTTATCTTCT GAATCTTCAC GTTTTCCCC GTACTTCTT	11400
CCAACACTGT CTTTAGTTT AATCTCTAAT GTTTTCCAAC CAACAACTC TTGTAGCACT	11460
CCATTTTAT CGAAGTAGTA CCACTCTGAC TTTGGAAAAC CTTCTAATCT GATACCATTT	11520
GGGTAAGGAC CAATTGTACT ACCTTTAGAT GGAAACGGGA TATATTGCCA GCCGACAACC	11580
ATCTCTCCAG ATAGAGAATC AAAATAATAG TACTTACCAT CAATCACTCG CCAGTAGGTT	11640
TCTTTGAGST CCCCCTTTT GTAGTAGGTT CTTCCGTTT CTTGGACAAA CTGCCATCCT	11700
TCAGAATCAT CTGCAAATAC TGTACTGGTC CCTAGCAAAC CAAAGAAAAA TACTGTCAGT	11760
CCAACCTGCA TAGTTTTTTT CAAAATTTT ATCTATATAC CCTCCAATAT TAAATCCACT	11820
CACCAGATGA GCGAAATTA TAACTTTTAC CATCGATAGT TTGGCTACCT GTAACCATTG	11880

985

CTCCAGG

11887

(2) INFORMATION FOR SEQ ID NO: 147:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11340 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 147:

CCGGTATGTT CTGGAATACT ACCAATCTAA GCTGGCTGTG CCCTACAGTT TTACAACCCT	60
GTACGAATAC CTTAAGGAAT ATGACCGATT TTTCAGCTGG GTTTTGGAGT CTGGTATTTT	120
AAACGCTGAT AAAATATCCG ATATTCTTTT ATCAGTTTTC GAAAATATGT CTAAGAAAGA	180
CATGGAATCC TTTATCCTTT ATCTACGTGA ACGTCCCTTG CTGAATGCTA ATACAACAAA	240
ACAAGGTGTT TCACAGACAA CTATCAATCG AACCTTATCA GCACTTTCTA GTCCTTACAA	300
GTATCTAACC GAGGAGGTG AAAACGATCA GGGGGAACCT TATTTCTATC GTAATGTAAT	360
GAAAAAGTT TCCACCAAGA AAAAGAAAGA AACCTTGCT GCCAGAGCTG AAAATATCAA	420
GCAAAAATC TTTCTAGGTG ATGAAACAGA AGGTTTCTA ACTTATATCG ATCAAGAGCA	480
CCCACAACAG CTTTCAAATC GAGCTCTCTC ATCATTCAAC AAAATAAAG AACGAGATT	540
AGCCATTATG GCCCTTCTCT TGGCATCTGG TGTTCGCTTA TCTGAAGCTG TTAATCTAGA	600
TCTAAGAGAT CTCAATCTAA AAATGATGGT TATTGATGTT ACTCGAAAAG GTTGCAAACG	660
TGACTCAGTC AATGTCGCTG CTTTGTCTAA ACCTTATTTA GAGAATTATC TGGCCATTCG	720
GAATCAACGC TATAAACCG AAAAACAGA TACAGCCCTT TTTTAACTC TCTACAGAGG	780
TGTCCTAAT CGTATCGATG CTTCTAGCGT TGAGAAAATG GTTGCTAAAT ACTCAGAGGA	840
TTTTAAAGTG CGTGTAACAC CCCATAAACT GCGCCATACA CTAGCAACTA GGCTCTATGA	900
TGCGACTAAA TCACAAGTTT TAGTCAGTCA CCAACTAGGA CATGCTAGCA CACAAGTCAC	960
TGACCTCTAT ACCCATATTG TTAGTGATGA ACAAAGAAT GCTCTGGATA GTTTATGATT	1020
TTACGTATTT TAAATTATGT AAATAAATAT CAAAAAAGA AGTTGGCCAA CTTCTTTTTC	1080
ATTTATCCAA CTACCGCTTC AGCGATTCTC TCACGGCTAA TACCAGCGAA GTAGCGTGTG	1140
ATATCAATGG TTTTTCAGCG CTTAAGAACA TCTTCGCGTT CGTATTTTAC CCCACGAAGG	1200
ACATCTTCTA CTGCAGCAAC GTCTTCAATA CCAAAGAAGT CACCATAAAT CTTGATGTCT	1260
TGGATTTTTC ATTCAGTAAC GTTAGCAAAG ACTTCAACCT TACCACTAGT GAATTTGATT	1320

		986	
CCACGACGGA CGTTAAATTC AGGTGATTTA CCATAGTTCC AGTCCCAAGT TCCAAACTTA	1380		
GTATCCTTGA TGCATTGAT TTCGGCCAAT TCTTCTTCTG AAAAGACGTA TTCAGTCATC	1440		
TCTGGGTA CTCTTTTCAT GTATTCCAAG AGTAAATCAC GGAATTTTC GACTGTGATT	1500		
TTTTTTGGTA ATTCATTGAT AATATTGGTT ACACGGGCAC GGACGGATT CACACCTTTT	1560		
GATTCAAATT TATCTTTTGA AACCTTAAGG GCATTTGCGA GGAAGTACAA ATCAACGTCA	1620		
AAGAGCAAGC AACCGTGGTG CATGATACGG CCGTTGATAT AGGCTTGGGC ATTGCCACAG	1680		
AACCTTCTAC CATCAATCTC AAGGTCATTA CGACCTGTGA ACTCAGCTTT AACCCCAAGT	1740		
TGAGCCAGGG TATTGATAAC CGGAGTTGAG AAGCTCTTGA AGTCAAATGC CTTATTTTCA	1800		
TCTTCTTTGG AGATGATCGT GTAGTTGAGG TTATTTAAAT CGTGGTAAAC AGCTCCACCA	1860		
CCACTAATAC GGCGAACTAC CTCAATACCA TTTTCGCGAA CATAATCAG GTTGATTCTT	1920		
TCGATAGTGT TCTGGTGACG ACCAACAATG ATAGATGGCT TGTTAATCCA AAGTAGGAAG	1980		
ATTTGATCCT CATCCAAAAG GTGTTTAAAG GCGTATTCTT CCAAGGCAAT ATTTAAAGCA	2040		
GTGTCAATTG AATGATTGAT AATGTATTTC ATGATATCCC TTTACTTTAT ATGATAGAAA	2100		
CTGGAAATAA CCTTCCAGTC TAATCTATCT TCGTTTTATT TTTTCTTAGG TGAATGGATG	2160		
GCCATTCCTA GAACATCTGC AAACGCTTCG TACATCACTT CAGAGTAAGT TGGGTGCCCG	2220		
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GCAGCAAAGT TAACTTACC GATGGCAACA TCGTATTCTT CACGGGCTTG TTCTTCTGTC	2460		
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GCGTGAGCCA ACATCTTAGT ACCGTTGATG TCACCTGGTG CATAAATGCC TGGAACTGAA	2640		
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TCCACATCCA TAGCTGGAAC TATACGGTCC ATCATTTCTG TAACAGTCAC TTTTGAACCA	2940		
AATGTCATGA AGGCCTGACC GAGTTCGATA CCGACAACTC CACCACCGAT GATAACAAGG	3000		
CTTTCTGGCA CTTCGTTTAT TTCAAGAATG TCATCACTAG TCATGACAAG TGGAGATTCC	3060		
ATACCAGGGA CGTTGATCTT GTTGACTTTT GAACCACCAG CAAGAATGAT TTTCTTGGTT	3120		

987

TCAAGCAATT CAGAACCATT TACCAAGACG TTCTTGTCTT TAGTGATTGT ACCAATTCCT	3180
TTATGAACAG TAACTCCGTA GCTACGAAGA AGTCCTGCAA CACCACCAAC AAGAGTATTA	3240
ACAACCTTAG ATTTAGTTTC TAAAAGTTTT TCCATATCAA CAGTGAAGTT AGGATTTTCA	3300
ATCACGATAC CACGATTGTC AGCATGACCG ATATTTTCAA TAATTCAGC GTTATGAAGG	3360
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ACAAGGGCAA CCTTACCGCC GAATTGGGCA GCTTTAATGG CTGCAACATA ACCAGCAGGA	3480
CCTCCACCAA TCACAACGAT ATCAAAAGCA TCATCGCTCT TACCATCATC GTTTGAGGTA	3540
CTTGCTACAG GTACAGGGCT AGCTTCTGGC GATGCTGCTC CAGCTGTTGG GATGTTTTC	3600
CTTCTTTCAC CAAGGTAACC GATAACTTCC GTTACAGGGA CAGTTTCACC ATCTCCTTG	3660
AGAATGGCAA TCAAGTACCC ATCTTCTTCG GCTTCCAATT CCATGCTGAC TTTATCAGTC	3720
ATGATTTCCA AAAGGATTTT TCCTTCTTTT ACAAATTCCTC CGACTTTTTT ATTCCATTGG	3780
ACGATTTGTC CTCTGTCTAT ATCCACGCCG GCTTTTGGCA TAATTACTTC TAAGGCCATG	3840
TCTTCCTTCC TTTATCTATA TCTTAAAAAT GAATACTCTT GCTCTTAAAT TAACATTGAG	3900
ATTGGCGTTT CAATCAACTC TTTCAAGTCC TTCATAAACT TAGCACCAGC CATACCATCT	3960
ACGACACGGT GGTCAATGGT TAATCCTAAA CTCATGATTG GGCGAATCAC AATTCACCA	4020
TTGACGACAA CTGGCTTCTC GATTGTCGAA CTGACACCAA GGATAGCTGA GTTGGGTTGG	4080
TTAATTAATCG GACCAAAGGA CTGAACACCA AACATTCCCA AATTACTGAT TGTGAATGTT	4140
GAATTTTGTA ACTCACTTGG AGCCAATTTA CCATCCAAGG TACGGCCAAT AACATCCTTA	4200
AAGGCTACAA CCAGTTCTGA AAGACTCATC TTCTCAGCAT TGTAACAAC AGGTGTCATC	4260
AATCCATTAT CCATCCCAAC TGCCATGGCA AGATTGACAT AGTTGTGAGT GATAATAGTC	4320
TTGCCATCTT CTGTCAATGA AGCGTTGATG TATGGGTGTT TCATAAGAGT CTTAACAAC	4380
GCAAGCGAAA GAAGGTCTGT TACAGTAGTC TTCTTCCCAG TTGCTTCCAT GATTGGCTCA	4440
AGAACCCTCT TACGAAGAGC CAACATTTCA GTCATATCAA CTTCATAGTT GAGGGTGAAG	4500
GTTGGCGCAG TCAAGTAAGA TTCAACCATG CGTTGGGCAA TAACCTTACG CATTGGTGTC	4560
ATTGGAATAC GCTCGATTTT ACCATATGGT GTTACGTTAT CAGGGACTTC TTCCACTTTT	4620
TCAATCTGAG CAGGAGATTT GATGCTATCG TTTTCGATAT TTTCAGGAAG CAGGGCCAAA	4680
ACATCCTTCT TCATGATTTT ACCACGATGA CCGGTTCCCT GGATTTCTCTG CCAAGCAATG	4740
TTATGTTTCA GGGCAATTCG TTTTGCAAGT GGCAGAAATGC GAACCACGTT TGTGTCTTTA	4800
TAAGTTTCCA CGTCTTCTTT GTGGACACGA CCGTTTGAC CTGAGCCAGA AACGTCGTAG	4860

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AGGTTTATCC CTAAATCATC CGCTAACTTT CTAGCTGCAG GAGTCGCTCT TAGCTTGTC	4920
TCAGCCATGA CCTCTCCAAT TCTATTTATG ATACAAAGGG CGTCAAAAGC GACTGAAAA	4980
TAGGAAATCG ACGATGGCTT CGATGAAGCC AAGGAGATTT ATCTTTTTC CGATCTTTTA	5040
GCCCGTGCTC TAATCTAAGA TATTAATGAC GAAGAGCTCT GCACCTAAAA GATACAAAGT	5100
TTCTCGTCAG CTTTATTTTA TTTACATAAC TTATCTTATG TAACCCTATT CTTTGTATA	5160
AGTTTTTCGG ATTGCATCTT TGATACTTTC AACTGTTGGA ATCATTGCAT TTTCTAGTT	5220
TTGTGCATAA GGCATCGGCA CATCTTCTCC TGCACAACGG CGAATTGGTG CATCTAGATA	5280
GTCAAATGCT TCTGATTCTG AAATAATAGC TGAAATTTC CCGATATAGC CACTTGTTTT	5340
GTGGGCATCG TTGACCAGAA CAACCTTACC AGTCTTCTTC ACTGAGTTTA TGATGATATC	5400
CTTATCAAGC GGAACAAGGG TACGTGGGTC AACAATTTC ACTGAAATTC CTTCTTCTGC	5460
TAATTCTTCA GCAGCTTGAA CCACACGGCG AAGCATTTTT CCATAAGTAA CAACTGTTAC	5520
ATCCGTTCCCT TGGCGTTGA TTTCACCAAC CCCAAGTGGA ATTGTGTAGT CTGGATCAAC	5580
TGGCACTTCC CCTTTTGGT TAAATTCTGA CTGTACTCA AGTATAATAA CTGGGTGTT	5640
ATCACGGATA GAAGACTTAA GCAGGCCTTT CATGTCCGCA GGTGTCCAG GTGCCACAAC	5700
CTTAAGTCCT GGAATGTGAG TAAACCAAGA CTCTAGAGAT TGTGAGTGCT GGGCGGCAGA	5760
GCCAACTCCG TTACCAGCTG CACAACGAAC AGTCATTGGA ACCTGACCTT TACCACCAA	5820
CATGTAACGT GTTTTAGCAG CTTGGTTGAC GATATTGTCC ATGGCAATAA CAGAGAAGTC	5880
CATGAAGGTC ATATCGACGA TTGGACGAAG TCCTGTCTATG GCTGCTCCTG CTGCTGCTCC	5940
AGAGATGGCA GCTTCAGAAA TCGGACAGTC ACGGACACGT TCTGGACCAA ATTCTTCAAG	6000
CATTCCAACA GAAGTACCGA AGTCTCCTCC GAAGACACCG ACGTCTTCTC CCATCAAGAA	6060
CACATTTTCA TCGCGACGCA TTTCCTCAGA CATAGCAAGG ATAATGGTGT CACGGAAGGA	6120
CATTGTTTTT GTTCCATTT TATCTCTTTC TCCTTAGTCT GCGTAAATAT CTTCAAAGGC	6180
TGATTCAGC GGTGGGAATG GGCTTTCCTC TGCAAATTTA ACAGAAGCTT CTAAGCTTC	6240
CTTTACTTGC GCTTGGATTT CTTCCAATTC TTCGGCACTT GCAATGTTAT TTTCAATAAG	6300
GTAATTGCGG AGGTTTTCGA TTGGATCTTT TTGTTTCCAC AATTCCACTT CTTACGCGT	6360
ACGATATTTA CCAGGGTCAG ATGATGAGTG ACCGAGCCAG CGATAAGTTA CACTTTCAAT	6420
CAAGACTGGA CCATTGCCAC TGCGAACATG GTCCACAGCT TTCTGAAATC CTTCATAGAC	6480
ATCGATGACA TTGTTACCGT CTTGATGAA CATTCCAGGA ATTCCATAAG CGGCGCTACG	6540
TTGATGGATA TGTCTATAT TGGTCATTTT CTTGATATCC GCAGAGATAC CGTAACCGTT	6600
GTTAATGCAA TAGAAAATGA CTGGCAGGTT CCAGATAGAA GCCATGTTCA CTGCTTCGTG	6660

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GAAAACACCT TCATTGGTCG CACCATCTCC AAAGAAGCAG ACAACGATT TACCGGTATT	6720
TTGCATTTGC TGACTGAGGG CTGCACCGAC AGCGATCCCC ATACCACCAC CTACGATACC	6780
ATTGGCACCA AGGTTCCCAG CATCAAGGTC AGCGATATGC ATAGATCCAC CTTTCCCTTT	6840
ACAGGTTCCA GTGTATTTAC CAAGGATTTC AGCCATCATT CCGTTGAGGT CAATCCCTTT	6900
AGCAATAGCT TGCCCGTGTC CACGGTGGTT TGAGGTAATC AGATCATCTG GATTGAGAGC	6960
TAACATAGCC CCCACGTTAG CTGCCCTCTC ACCAACAGAA AAGTGCCTCA TTCCTGGCAC	7020
TTTCCCTTTC TTTACTAATT GTGCAATTTT TAAGTCCATG CGACGGATTT CTTCCATCTT	7080
ACGGAACATT TCTAGCAAAA GATTTTATC TAAAGTTGAC ATCTTCTTGC CTTTCTAACT	7140
TTCTTCTTAC CTTACTATTT TACCGCTTTT GGCAAAACT GTCAAAGTTT TTCTAAAAGA	7200
AATTTACAAA AATAAAAAAG AAAACCCCGT GAAAACAAGG GATTTTCTTG TCAAGAATAT	7260
TTTTTCACAA ACTTTTTCAG ATTTGGATTT TGCTAAAGAT TCAAATCTCT TCATAATCAC	7320
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GTAAGAATAA GCTCCAAAAT CTGTTAGGGA ATCAATAGC GTATCACAGG GATTGCTACG	7440
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ATTCCCTGAA GCGGCGCCGC AAAGGTATCT GCTAACTGGA AGAAAAGACT ATAAGTTAAA	7560
AAACGCACCTG TCAAATCGAT AAATTTTGGG TCGTTACCAT AAAGACTGGC CACATTTCCC	7620
CTAAAAATGT AAAGGAAGGT TAAGGTGAAG GCCGCAAAA TGAGGGCAGT CCATCTTCCT	7680
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ATAGCCATAG CCGATGAGAT ACTCATAGGA AAGGCGTACA TAAGACTTGA AAAGTTCATA	7800
GCTGACTGGT GACTAGCTAT AATCAAGGGC GAAAACCTAG CCATAATCAA GCCAACCACT	7860
GAAAAGATAG CCACTTCCGC GAAGACAGTT CCCCCAATAG GCAGACCTAA ACGAACTCCT	7920
TCCTTAATTT TATCCATATT AAGTGAATT CGTTTCTCAA GGTGTAAGGC TTTGAGCTTC	7980
TCCTGTTTAA ATAAAACCAG AACAGAAATC CCAAGCAAGA CCCAGTAGGC CAAGGATGTT	8040
CCTAAACCAG CACCAGCCCC TCCCAGTTCT GGAACACCAA AGGCACCGTA AATCAAGAGA	8100
TAGTTAAATC CGCTATTGAG AGGGAGTAAC AAAAGCATGA GGTACATGGA CAGTTTGGTC	8160
AAGCCCAGCG AATCCAGCAA GGAACGAATG ACGCTAAAGA GCAACAAGGG GATAATCCCG	8220
ATAGATAAAA ACCAAAGATA GCGAACCGCT ACTGCCGCTA CTGCTGCTTC TAACCAATA	8280
TGATTCAAGA TTATTGGTGC CAAGAAAAGT ACCATCCCCA GCAAGACCAC AGATAGGCCC	8340
AAGGCCAAT AAATAAATG GTAAAAATCA GACGCAACTT CTTCTTTT GCCTCGACCA	8400

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AGATGGTGAC CAATGATAGG CACCAAGGCT GACACAATCC CTGTTAGAAA TGTAAAGAAA	8460
GGATTCCAGA TACTGGTTGC CATAGATACA CCAGCCAAGT CCATAGTGTT GTATTGACCT	8520
GTCATTGCAG TATCAACAAA AGAGGCAGAA TAATTGGCAA ATTGGTAGAT CAGGATTGGG	8580
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CTCTTTCTAT TCTGATTAT CTAACCAAAA GAGTTTCAGA CCATAGTTTT TCAAACCTAG	8700
CGGAGGTTTA TTAGATTTTG AAGTAGTATG CCAACACGCA CATGTACGAC AATAATAGCT	8760
TCTAACTAAA CCTCCGTAT CATATTGAAC CGCATGGTCA GCTTTTCTT TAGTTTCATA	8820
TTGAATTTTG GAACGATTAG CTGCGGGACA GTAAATPCCA CTATTAGATT TCGCTTGCT	8880
CTCCCTACGT TTTGAAAAAT AATTCATATT CTAACCTCTA TCAAGCTTGA TAGACGATTT	8940
GTCCCTTACA GATGGTATAT TTAACCTGCC CTTTAAAGGT TTCACCGATG AATGGTGAAT	9000
TAGCTGCTTT GGAAGCAAAA TGGGAGTCCA CAAAGCGGTC AGCCTTGGA TCAAAAATAG	9060
TGATATCTGC TGGACCATTC TCAGCCAAGT AACCTGCTTC AAAGTTGTAA AGCTTGGCTG	9120
GGTTGTATGT CATTTTTTCA AGTAATPCCA TCAAGCTCAA CTCACCAGCT TCTACTAAAT	9180
AGGTCAAGCT GAGAGACAGG GATGTTTCTA AGCCAGTCAT ACCAGATGGC GCTTTGGTAA	9240
TATCCTCAAC ATTTTTTCA TCTACATGAT GAGGCGCGTG GTCAGTCGCA ATAACGTGA	9300
TGACACCTGA TTTGAGACCT TCGATAACGG CACGACGGTC TGATTCCAAA CGAAGCGGTG	9360
GATTCATCTT AGCATTGCTA CCTTGTTGTA AAAGAAGTGC TTCTGTCTTA GAGAAATGCT	9420
GTGGCGCTAC TTCTGTGTG ACTTCTGCAC CTAACCCCTG AGCAAACTCC ACTACTTTAA	9480
CACCTTCTTC CTTAGACAAA TGCTGGATGT GAACATGGGC TTTAGTTGCA TAGGCAATCA	9540
TGACATCAG CGCCATCATA GCGTACTCAG CCACCCAGT AGCACCGCAG ATATGGAAAT	9600
GTTCTCTAGC AATATTTTCA TTAAAGCCAA GAACCCGTT CAAACCTGGA TCTTCCTCAT	9660
GAAGGCTGAT AAAGGTATTG AGTTTTTTGG CTTCTCCAT GGCTTCCTTG ACAATCTTAC	9720
TGCTCTCAAG CGGAATACCG TCATCAGAGA AACCAACCGC ACCAGCTTCT AAGAGTGCCT	9780
TAAAGTCAGT CAAGTTTTTA CCATTAAAGT TTTTAGTAAT GGTGCAACT GTCTTGACAT	9840
TAATCTTCTC TTTGGCAGCT GACTGGAGAA CTGCTTGCAA AGTCTCCAG TCTGAAATGG	9900
TTGGACTGGT ATTAGCCATC ATGACGACAG TAGTAAACC ACCTGCAGCG GCTGCTAGGG	9960
CACCAGTATG AATGTCTTCT TTATGTGTTT GACCAGGTTT ACGGAAATGA ACATGAATAT	10020
CGACCAAGCC AGGAGCAACC ACAAGACCAG TAGCATCAAT CGTTTCTGCT CCTTCTCCG	10080
TGATCTCAGA CGCAATTTTG ATAATTTTCC CATCTTGAAC TAAGACATCA CAAACTTGAT	10140
CCAAACCAGA CTTGGGATCC ATTACACGAC CATTTTTGAT TAGTAGCATC TGCTTTCTCC	10200

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TTTATTCATA GAAATCAACT TGGGTATCCA ACAATTTATC CCCATCATAA ACAAACCTGG	10260
CTGAAAAGAA GGGTTTATCC TCTAAAAGCC ACTCAACAAA GGTGTGGTCA CCTTCCCAAG	10320
TCGGCTTGCT CAAAACCTCA TCATAGGGAA CCCATTCTAG CGTCCCCTCA TTGCAGTCAA	10380
TCAAGTCGCC CTCAAACCTCC GTCACCTTAA AAACATAGGT GTACCAGTCT AAATCTGGTG	10440
TAAATTCAGG AAAAGTGATG ACACCTTTTA GAACTGGCTT GGCTTTGAGC CCTGTTTCTT	10500
CAAGGATTTC ACGCGCCGCG CATTCCTGGG GCGTCTCTCC TCTCTCTAGC TTACCACCCA	10560
CACCAATCCA TTTCCTTCA TGGACATCAT TGGGTTTCTT ATTACGATGG AGCATGAGCA	10620
GTTCCTTCCC ATTATCAATG TAGCAAATCG TCGCTAACTG AGGCATATTT TCTCCTTATC	10680
TAAGCCAATC GATTGGCTCT TGTCCTGTCT CTTTAAAGAA TGCATTGGCC TTGGAAAAGG	10740
GCTTGGAACC CAAAATCCT CTATAAACCG ACAAAGGACT TGGATGGGCT GATTGATAA	10800
TCAAGTGATG AGGATTGGTA ACTAATGCCT TCTTCTTACG TGCATAAGCT CCCCAGAGTA	10860
CAAAAACGAC TGGTCTATCT AGATGATTGA CCACCTGAAT CACAGCATCA GTAAAAGGCT	10920
CCCAGATTG ACCAGCATGA CCATTGGCCT GTCCAGCAGG AACAGTCAAA CAAGCATTAA	10980
GAAGCAAGAC TCCTTGCTCA GCCCAAGCTG TCAAATCATG AGATTCTTA ACTCCGATAT	11040
CATCTGACAA TTCTTTCAAG ATATTTTGCA AGGATGGTGG AGCTGGGATA GAGTCAGGTA	11100
CAGAAAACT CAAGCCCTGC GCTTGACCTG GTCCGTGATA GGGGTCTTGC CCTAGAATTA	11160
CCACCTTAAC TTCTTCAAGC AGTGTGTCA AGAGAGCCTG AAAAACTTT TCCTTGGGTG	11220
GATAAATAAT CCCCTGAGAA TAGACCTGCT CCATAAACTG ATTGATTTTC CCGAAATAAC	11280
CCTCAGGTAA TTGCGCCTTA ATCAAAGCAT GCCAAGACGA GTGTTCCATA GCCGACTCGG	11340

(2) INFORMATION FOR SEQ ID NO: 148:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12127 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:

AAAAAATAGA CTTGTTAGAC TATAAATGTA GTAAGCCTAC ACAAGAAAAA TACATAGAGA	60
TAAAGGTGAT TATTATGAAA TTCAAAAAA TGCTTACTCT TGCAGCCATT GGCTTATCAG	120
GATTTGGGCT TGTGCGCTGT GGCAATCAGT CAGCTGCTTC CAAACAGTCA GCTTCAGGAA	180
CGATTGAGGT GATTTCACGA GAAATGGCT CTGGGACACG GGGTGCCTTC ACAGAAATCA	240

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CAGGGATTCT CAAAAAGAC GGTGATAAAA AAATTGACAA CACTGCCAAA ACAGCTGTGA	300
TTCAAAATAG TACAGAAGGT GTTCTCTCAG CAGTTCAAGG GAATGCTAAT GCTATCGGCT	360
ACATCTCCTT GGGATCTTTA ACGAAATCTG TCAAGGCTTT AGAGATTGAT GGTGTCAAGG	420
CTAGTCGAGA CACAGTTTTA GATGGTGAAT ACCCTCTTCA ACGTCCCTTC AACATTGTTT	480
GGTCTTCTAA TCTTTCCAAG CTAGGTCAAG ATTTTATCAG CTTTATCCAC TCCAAACAAG	540
GTCAACAAGT GGTCAAGAT AATAAATTTA TTGAAGCTAA AACCGAAACC ACGGAATATA	600
CAAGCCAACA CTTATCAGGC AAGTTGTCTG TTGTAGGTTT CACTTCAGTA TCTTCTTTAA	660
TGAAAAAATT AGCAGAAGCT TATAAAAAAG AAAATCCAGA AGTTACGATT GATATTACCT	720
CTAATGGGTC TTCAGCAGGT ATTACCGCTG TTAAGGAGAA AACCGCTGAT ATTGGTATGG	780
TTTCTAGGGA ATTAACCTCT GAAGAAGSTA AGAGTCTCAC CCATGATGCT ATTGCTTTAG	840
ACGGTATTGC TGTGTGGTC AATAATGACA ATAAGGCAAG CCAAGTCAGT ATGGCTGAAC	900
TTGCAGACGT TTTTAGTGGC AAATTAACCA CCTGGGACAA GATTAAATAA AATGTTTGCT	960
CCATAAATCT CTAAAGAGAT GCAGACGTTT CATCGTACAA TAAGATAAAG AAGGCAAGTA	1020
GGGAGGTGTC GTATCTCCCT TACTTTCTTC ACTAGAAAGG ACAAGATGTG ACAAACAAG	1080
CCTTCAAGA AGCAGTTTTT AGGGCAATTT TTTTCATGAG TGCAACAGTA GCTGTTGTAG	1140
CTATTTTGCT AATCTGTTTC TTTATTTTGA GTAATGGCTT ACCTTTCATA GCTAACTACG	1200
GCTTTGCCCG TTTTTTATTA GGCAGTGATT GGTGCGCAAC GAACATTCCG GCAAGCTATG	1260
GTATTTTACC AATGATCGTT GGTTCCTTAT TAATTACCTT AGGAGCGATT GTGATTGGGG	1320
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GCTTCTTAAA ATCAGCTATC AACTTGATGG CAGCCATTCC ATCTATTGTT TATGGTTTTT	1440
TCGGCCTACA ATTATTGGTG CCTTGGATTA GAAGCTTTTT AGGAAATGGC ATGAGTGTCC	1500
TAACCGCTTC GTTACTATTA GGAATAATGA TTTTGCCAAC CATTATCAGT TTGTCAGAAT	1560
CTGCTATCCG AACAGTTCCT AAAACGTATT ATTCTGGTAG CTGGGCTCTA GGAGCTAGTC	1620
ATGAACGGAG TATTTTTAGT GTCATCTTGC CAGCTGCGAG ATCTGGTATT TTATCAGCAG	1680
TTATTTTAGG AATCGGTCGC GCAGTAGGTG AAACCATGGC AGTTATTTTG GTGGCAGGCA	1740
ACCAGCCGAT TATTCCAAGT GGAATCTTTT CAGGAACCAG AACCTTAACA ACCAATATTG	1800
TTCTGGAAAT GGCTTACGCA TCAGGTGAGC ATAGGGAAGC CCTTATTGCA ACCTCAGCAG	1860
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CTTATGAGTA AATACCTGCT AAAACTTCTC GTTTATTGTT TTTTCTGCTT AACCTTTGGC	1980
TCTCTCTTTT TAATCATTGG TTTTATCTC ATCAAAGGCT TACCTCATCT AAGTCTATCC	2040

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CTCTTTTCTT GGACTTATAC TTCTGAGAAC ATTTCCCTTA TGCCAGCGAT TATTTCCACC	2100
GTTATTCTGG TCTTTGGTGC TCTTCTTTTA GCCTTGCCCA TAGGGATTTT TGCTGGTTTT	2160
TATCTTGTGG AATATACAAA AAAAGATTCC CTTTGTGTTA AAATCATGCG ATTGGCCTCA	2220
GATACCTTAT CTGGGATTCC TTCCATTGTT TTTGGTCTGT TTGGCATGCT CTTCTTTGTA	2280
GTCTTCTTAG GTTTTCAATA CTCTCTGTTA TCAGGAATCT TAACCTCAGT TATCATGGTG	2340
TTGCCAGTCA TTATTGCTC AACAGAAGAA GCCCTTTTAT CTGTTAGTGA TAGCATGCGT	2400
CAAGCAAGTT ATGGACTTGG GGCAGGTAAG TTACGGACTG TTTTGTAGAAT TGTCTACCA	2460
GTTGCCATGC CAGGTATTTT AGCTGGAGTG ATACTAGCTA TTGGCCGTAT CGTTGGTGAA	2520
ACAGCTGCCC TCATGTATAC ATTAGGTACC TCTACCAATA CGCCAAGTAG TCTCATGTCT	2580
TCAGGCCGTT CTCTAGCCCT ACATATGTAT ATGCTGTCAA GTGAGGGGCT ACATGTCAAT	2640
GAAGCCTATG CTACCGGCGT GATTTTGATT ATTACTGTTT TAATGATAAA TACTCTATCA	2700
AGCTTATTAT CTCGAAAAC TGTGAAAGGA GCTTCCTAGT ATGGGAACAT TTTCACTCAG	2760
ACACCTAGAC TTATTTTACG GGGATTTTCA AGCCTTAAAA AATATTTTCA TTCAATTACC	2820
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AACCCTTAAC CGGATGAACG ATTTGGTTCC TTCTTGCCAT ATTGAAGGCC AAGTCCTCTT	2940
AGATGAGCAA GATATTTATA GTAGCAAATT CAACCTTAAT CAGCTACGTA AGCGTGTAGG	3000
GATGGTTTTT CAACAGCCTA ATCCCTTTGC CATGTCTATC TATGATAACG TGGCTTATGG	3060
CCCAAGGACA CATGGTATTC GAGACAAAA ACAATTAGAT GCCTTAGTGG AGAAATCTTT	3120
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TCTGTTAATG GATGAGCCGA CTTCAGCCTT AGACCCTATC TCCACTTTAA AAATTGAAGA	3300
CCTCATTCAG CAACTAAAAA AGGATTATAC GATTATCATT GTTACCCATA ACATGCAACA	3360
AGCTTCACGT ATTTTCAGATA AACTGCTTT TTTCTTAACA GGAGAAATTT GCGAATTTGG	3420
AGATACCGTT GACGTGTTTA CCAATCCAAA AGATCAGCGC ACAGAAGACT ATATTTACAG	3480
ACGGTTCGGA TAAGGAAGGA AAAACCTATG AGAAATCAAT TTGACTTAGA ATTGCATGAA	3540
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CTGGCCTTAG CCTCCAAAGA CAAGGAGATG GCAGAGCTAA TTATCAATAA GGATCATGCT	3660
ATCAACCAAG GTCAAAGCGC TATCGAATTG ACCTGTGCCC GTTTGTTGGC CTTGCAGCAG	3720
CCACAAGTGT CTGACCTTCG ATTTGTGATT AGCATCATGT CTTCTGTTC AGACCTTGAA	3780

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CGTATGGGAG ACCATATGGC AGGCATTGCC AAAGCTGTTT TGCAACTAAA AGAAATCAA	3840
CTAGCCCCCTG ACGAAGAACA GTTACACCAA ATGGGTAAAT TATCCCTCAG CATGCTAGCC	3900
GATTTATTGG TTGCCTTTCC TTTGCACCAA GCCTCAAAAG CTATTAGTAT TGCTCAAAAA	3960
GATGAACAGA TTGACCAATA TTATTATGCC TTATCAAAGG AAATCATTGG ACTTATGAAA	4020
GACCAAGAAA CCTCAATTCC CAATGGAACCT CAATACCTTT ATATCATAGG GCATCTGGAA	4080
CGCTCGCTGA TTACATTGCT AACATTTGTG AACGCCTAGT CTACCTAGAA ACAGGAGAAC	4140
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TTCTTTGGGG ATAAGACAGA TAGTTCGACC ATGATTAAGA ATGAAGTACG TATGATGATG	4380
GGCTGTCTGG CTTATAATCT CTACCTCTTT TTAAAGCAGC TAGCTGGTGA TGAAGTAAAG	4440
TCCTTGACTA TCAAGCGTTT TCGACGTCTC TTCCTTCATA TTGCCGGAAA ATATGTCTCT	4500
ACTGCTAGAC GACATATTCT CAAATTCTCA AGTCTATACG CCTATTCAA ACAGTTTCAA	4560
GCCTTATTTG ATACAATCTG CCAGATAAAT CTGATACTCC CTGTTCCATA TAGAGCTAGA	4620
GGGACGGGGA AAACATGCCT AACAGAATAA GTCACCTTAT TTTAAAAATC GAGCATCAA	4680
CCAAGGGAGG AGTCTGCCCT TTTTAGGAA AAAATCAAGA CAAATCTCCT CAATTATGTC	4740
TCGAACATCA GAAATTAAGC AAAATCACCA GAAGGACACT ATTTCAACTA GCTTTTCTGG	4800
TAATTTTGA ACTGTGTAGT TCGTTAGTGC CAGATATGAA TAATTTGGGA TGATAAATCT	4860
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CTTTTGGGCG ATAGTTTCAT CTTCGTATGT AGGAGTCCTC ATCAAGAAAT ACTTCAATTC	4980
TAGGTATTCC TTATCCAACCT CTATATAACT TGGCATCAAC TTGTAATCTT CAACCCCAA	5040
ACGTTACGCA ATATATTTTA ACTTTGTTAG TATTGGTCTG GATTCTCCAT TTTCAATTCT	5100
AATTAATTGA CGGATACTTA ATTCAGACTC ATCACCACAA AATTCTGAAC GACTGATTT	5160
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TGAGTTGTTT ACCTCTATTA TAAGCATATA CTGAATCAA CTATCTATCA GATTCTTCT	5280
CACTTTAACT AAAGACTAAG AGTTTATCCC TTCGTCTCGG TTTTGTGTA TTTTCCACC	5340
ATACCCAGT AATGCAAGTG CAAAATCCCC TAGAATATGA TAGAATAAGA GAAAGAACTC	5400
TATCAAGGAG GAAATCATGG AAAACAAAC CGTCGCCGTC TTGGGGCCTG GTTCTTGGGG	5460
AACCGCCCTT TCACAAGTCT TAAATGACAA TGGACACGAG GTACGTATTT GGGGAAATCT	5520
TCCCGAGCAA ATCAATGAAA TTAATACACA CCATACTAAT AAGCACTACT TTAAAGATGT	5580

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CGTTCTAGAC GAAAATATCA TTGCCTACAC CGACTTAGCA GAAACATTGA AAGATGTGGA	5640
TGCGATTTTG TTTGTTGTCC CAACAAAAGT GACACGACTT GTTGCCCAGC AAGTTGCACA	5700
AACCTTGGAC CATAAGGTTA TCATCATGCA CGCATCAAAG GGATTAGAAC CTGATAGCCA	5760
TAAACGATTA TCAACCATTC TTGAAGAAGA AATTCCTGAA CATCTCCGTA GTGATATCGT	5820
CGTTGTTTCA GGGCCTAGTC ATGCAGAAGA GACCATTGTG CGTGACCTAA CTTTAATAAC	5880
TGCTGCTTCT AAAGATTTAC AAACAGCTCA ATACGTTTCA AAGCTATTTA GTAATCACTA	5940
CTTCCGACTT TATACCAATA CGGATGTTAT CGGGGTTGAA ACTGCTGGTG CTCTTAAAAA	6000
TATTATTGCT GTCGGTGCTG GAGCTTTACA TGGTCTTGA TTTGGTGATA ATGCTAAGGC	6060
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TCCATTGACC TATAGCGGCT TATCTGGTGT GGGAGATTTG ATCGTAACGG GAACTTCCAT	6180
CCACTCTCGT AACTGGAGAG CTGGAGATGC TCTCGGACGA GGAGAATCCC TAGCTGATAT	6240
AGAAGCTAAT ATGGGCATGG TAATCGAAGG AATTTCAACG ACTCGAGCAG CCTATGAACT	6300
AGCCCAAGAA CTGGAGTCT ATATGCCCAT TACACAGGCT ATTTACCAAG TTATTTATCA	6360
CGGAACCAAT ATCAAAGATG CCATTTATGA CATCATGAAC AATGAATTTA AAGCAGAAAA	6420
TGAGTGGTCT TAACCTCTA TAGAAAGGAT TTTTATGACA TCAAAAGTTA GAAAGGCAGT	6480
CATCCCTGCT GCTGGACTAG GAACTCGATT TTTACCAGCA ACCAAGGCCC TTGCCAAAGA	6540
AATGTTGCCA ATCGTAGACA AACCAACTAT CCAGTTTATC GTGGAAGAAG CTCTCAAATC	6600
AGGTATTGAA GATATTCTAG TTGTCACTGG TAAATCAAAA CGTTCTATTG AGGACCACTT	6660
TGATTCAAAC TTCGAATTGG AATATAACCT CAAAGAAAAA GGGAAAACAG ATCTTTTGAA	6720
GCTAGTTGAT AAAACAACG ACATGCGTCT GCATTTTATC CGCCAACTC ATCCACGCGG	6780
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CATGGATGAC TACGAGCGTA CCCACGCGTC TACTATCGCT GTCATGCCAG TCCCTCATGA	6960
CGAAGTATCT GCTTACGGGG TTATTGCTCC GCAAGGCGAA GGAAAAGATG GTCTTTACAG	7020
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CGGACGCTAC CTCCTCAGC CTGAAATTTT TGAGATTCTC GAAAAGCAAG CTCCAGGTGC	7140
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TGCTCGTGAG TTCAAAGGGG CTCGTTACGA TGTCGGAGAC AAGTTTGGCT TCATGAAAAC	7260
ATCCATCGAC TACGCCCTCA AACACCACA AGTCAAAGAT GATTTGAAGA ATTACCTCAT	7320

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CCAACCTGGA AAAGAATTGA CTGAGAAGGA ATAACAAAAT CATTATATATA AAGATTAGCC	7380
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CTGTTGGAGT AGTCATGGTT AAATTAAATC AACCGAGCCG AACATAAGTT GTTTAATTTT	7680
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AAAAGATAGC AAATCAGACA AAGAACAAGT TGATAAACTA TTTGAATCAT TTGATGCATC	7980
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ACAACAGAGC TAGGCACAGC AGTTGCGAGT TGCCCTCAA AGGTTACTTT GACACTGGTT	12060
TTCTTTTCAG CATTGGCGAT AAATGGATA ATTTCTTGAG CGTTCATTTT TGTAGCAGTC	12120
ATAGGTG	12127

(2) INFORMATION FOR SEQ ID NO: 149:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12566 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:

CCATCCTTCT GTTGATGTGA CAGGAATGAT GATAAATCAA CCAGTAGCTA GTCGCGAAGA	60
GGTGACAGAG GCTTTGAGTC ACTTGGCGGT AGAGCACAAT AGTCTCATTG CTCGTCGAAT	120

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CGTTGAGCCA AATGAAGCTG GAGAAACACG CTTTACCTAT GCCACTTATG GTGAGGGAAA	180
GCTTCCAGAA GGTCTGACCA TTTCTCTCAA GGAGAGTGCA GAAACGAGTG ATTTATTAGG	240
GTCTTACTTG ATTGTATCAG GAAGTTTGA TGGAGTGAGC TTACAGACCA CCTTGAAAGA	300
GCTTGGTTAT CAAGGCTTG TTTCAATGG AGAAGATCCA TTTTCGATAG TCTTACTATT	360
GACGGCCACC CCTATGGTGC TACTGAGTTT AGCTATTTTT CTGCTGACCT TTATGAGTCT	420
GACCCTGATT TATCGGATCA AATCCCTTCG TCAGGCAGGG ATTCGCTTAA TAGCTGGTGA	480
GAGCTTGTTT GGAGTTGCTC TCAGACCACT GTTAGAAGAT GTGAGACAGC TTATCTGCTC	540
AGTGCTGGTA TCCAGTCTTT TGGGATTGGG GATTCTCTGG TATCAAGGTG CCTTGTTTAT	600
GGCAACGGTG CAACTGGTCA TCATTGCTCT TCTACTTTAT GGATTGACCT TGGCAGGGAT	660
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AACTTTGAAA TCGAAGTGGA TGGTGGGATT GATGACCAAA CTATTGCTCA AGCCAAAGAA	5340
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TCGTCATTAT CAAACCGGCC TTTGAGGAAA TTGAAATCGG TCATATCCAG ACAGTGACTG	8700
GGGCTGGCGG AGGTGTCATC TTCACACCGT CTATTTGAG TCAGGATGCT AAGGAAATGG	8760
TTGAAGACTT GCGTACCAAG TTGTCAGAAA GTGACCGTAT CTTGCCAGGT GGTATATCT	8820
ATCTGTCTGA TTTGCTTAGC ACACCAGCCA TCTTGAAAAA TATTGGTCGT ATTATTGCCA	8880
AAAGCTTTAT GGACCAAAAA ATTGACGCGG TTATGACCGT AGCAACTAAG GGTGTGCCAC	8940

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TTGCAAAATGC AGTTGCCAAT GTCCTCAATG TCTCTTTTGT CATTTGTGCGC CGTGACCTGA 9000

AAATTACCGA AGGTTCAACT GTTAGCGTCA ACTATGTTTC AGGTTCAAGT GGTGACCGTA 9060

TCGAGAAAAT GTTCCTTTCA AAACGTAGTC TTAAGGCAGG CAGCCGTGTC TTGATTGTGG 9120

ATGACTTCTT GAAAGGTGGC GGAACGGTCA ATGGTATGAT TAGTCTCTTG CGCGAGTTCTG 9180

ACTCAGAACT GGCAGGTGTA GCGGTCTTTG CGGACAATGC CCAAGAAGAA CGTGAAAAGC 9240

AGTTTGACTA CAAGTCACTC TTGAAGGTAA CCAATATTGA TGTCAAGAAC CAAGCCATCG 9300

ATGTTGAGGT TGGCAATATC TTTGACGAAG ATAAATAAGA GATAGAATAA AAGGTTGGAA 9360

CGATTGTCCC AGCCTTTCTT TGCAAAACAGA ATAGAAGGAA GCTTATGAAA ACACCATTTA 9420

TCAATAGAGA AGAGTTAGAA GCGATTGTTG CCGAGTTCCC GACTCCCTTT CACTTGTATG 9480

ATGAGAAGGG GATTCGTGAG AAGGCAAGAG CCGTCAACCA AGCTTTTTCG TGGAACAAGG 9540

GCTTTAAGGA ATATTTTGCA GTTAAGGCTA CTCCAATCC AGCTATTTTG AAAATTCTCC 9600

AAGAAGAAGG TTGTGGTGTG GACTGCTCTA GTTATGTAGA GCTTTTGATG AGCCATAAAC 9660

TGGACTTTCT GGGTTCTGAG ATTATGTTCT CTTCCAACAA CACGCCAGAC AAGGAATACG 9720

CCTATGCACG TGAATTGGGT GCGACCATTA ACTTGGATGC CTTTGAAGAT ATTGAACATC 9780

TGGAGAGAGT AGCAGGCATT CCAGAAATCA TCTCTTGTGC TTATAATCCT GGAGGCGTTT 9840

TTGAACTGGG GACAGACATT ATGGACAATC CTGGGGAGGC TAAGTTTGGC ATGACCAAGG 9900

ACCAGCTCTT TGAAGCCTTT GCTATCTTGA AGGAAAAAGG AGCCAAGACT TTTGGGATTC 9960

ACTCCTTCCT AGCGTCCAAT ACCGTGACCC ATCTCTATTA TCCAGAGTTG GCTCGTCAGC 10020

TCTTTGAACT GGCTGTTGAA ATCAAGGAAA AGTTGGGCAT TTCGCTAGAC TTTATCAATC 10080

TTTCTGGCGG TATTGGTGTG AATTATCATC CAGACCAGGA GCCGAACGAT ATCGCCTTGA 10140

TTGGTGAGGG AGTTCGTAAG GTGTATGAAG AGGTTCTTAC GTCAGCAGGT CTTGGTCAGG 10200

TCAAGATTTT CACCGAATTG GGTGCTTTTA TGCTGGCACC TCACGGTGCT CTAGTCACAA 10260

GAGTCACTCA TAAGAAGGAA ACCTACCGTA CCTATCTAGG TGTGGATGCC TCAGCAGTCA 10320

ACCTCATGCG TCCAGCTATG TACGGAGCTT ACCATCATAT TAGCAACGTG ACCCATCCAG 10380

ATGGACCAGC TGAAGTGGTA GATGTGGTCG GTTCACTCTG TGAAAACAAT GATAAATTTG 10440

CAGTTAATCG CGAACTGCCT CATACAGAAA TCGGTGATTT GCTGGTCATT CATGATACAG 10500

GTGCCACCG ATTTTCAATG GGCTACCACT ATAATGCCAA ATTACGTTCT GCGGAAATCC 10560

TCTATACCGA AGAAGGTAAA GCGCGTCAAA TCCGCGGTGC AGAGCGCCCT GAGGACTATT 10620

TTGCAACCTT ATATGGCTTC GATTTTGAAG AATAATCTGA TAATAGATTG AAAATGAAAT 10680

TGAAAAACAG ATTGCTTTCT AAAAAATAGG CAAAAATCTT GTTTTTCCTT CAAGTCGTGA 10740

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TATAATAAAA CTATAAAACG TTTTCAAGGA AGGTAACGAT ATGTCTGAAG AAACAATTGA	10800
TTATGGACAA GTGACAGGAA TGGTGCATTC GACAGAAAGC TTTGGGTCAG TAGATGGGCC	10860
TGGTATTTCG TTTATTGTCT TTTTGCAGGG CTGTCACATG CGTTGCCAGT ATTGCCACAA	10920
CCCAGACACT TGGGCTATGG AGTCCAATAA GTCACGTGAA CGGACGGTAG ATGATGTCTT	10980
GACAGAGGCC TTGCGCTACC GTGGTTTCTG GGGAAATAAG GGTGGGATTA CAGTCAGTGG	11040
AGGAGAAGCT CTCTTGAGA TTGATTTCCT GATTGCTCTC TTCACCAAGG CTAAGGAACA	11100
AGGAATCCAC TGTACCTTGG ACACCTGTGC TCTTCCTTTC CGTAATAAAC CACGTTACCT	11160
TGAGAAGTTT GACAACTCA TGGCTGTCAC TGACTTGGTT CTTTGGATA TCAAGGAAAT	11220
CAACGAAGAA CAGCACAAGA TTGTCAC TAG CCAAACCAAT AAAAAATATCT TGGCTTGTGC	11280
CCAGTATCTA TCAGATATTG GAAAACCTGT CTGGATTTCG CACGTGCTAG TTCCAGGATT	11340
GACAGACAGA GATGATGACT TGATTGAACT TGGTAAGTTC GTCAAGACCC TCAAAAATGT	11400
TGATAAGTTT GAAATTCTAC CTTATCACAC CATGGGTGAG TTCAAGTGGC GTGAACTTGG	11460
AATCCATAT TCCCTCGAAG GAGTCAAACC ACCAACAGCA GATCGCGTCA AGAACGCTAA	11520
ACAACCTATG GATACCGAAA GTTATCAAGA TTATATGAAA CGTGATACATG GATAGAAAAG	11580
AAGCCTGATG GAAACATCGG GCTTTTGA CTGCAAAAAGA CTTAGCAAAT CAGCTAAGCC	11640
TTTTTCTTCT TATCTCGAAC GTTGTCTTCC AGCGTTGCGA TTTTGTGTT TTTTCTTGCT	11700
TGTGATAGCA GTTGGTTGTT CAGGGGTAAC GTCTTTTCGT CCACTTGGTT TAGAGAAAGC	11760
ACTTGCTTTT GGTGGGTCT TGGCTAGTTC TTCACGGACT TTTTTCGAA GTTTTGGACG	11820
AACGATATAG TTGACGATAA ACTGTTGGAG AATCATCATG AAACCACCGA CAACCCAGTA	11880
AAGTGTGACA CTAGCTGGTG AGAAGAGGGA GAAGACGACG ATCATGAGTG GGCTCATGTA	11940
AATCATTTTC TTGATTGTT CTCTTTGCAT TTCATCTTCT ACTCCGTGAA GTGAAAGGAG	12000
CGATTGAAGA TAGTAAAGGA CACCAGCACA GGCAACCAAA ATCATACTTG GAGAACCTAG	12060
AGGAATGCCT AGGTAGCTTG CTTGAGCAAC CCCTTCAGTA TGTGGGCAG CAAAGTAGAT	12120
AGCAGAGAAG AAAGGCATTT GAAGGAGGAT AGGGAACAT CCTACACCGC CAAACATGCT	12180
GATACCGTGC TCTTTTGGAG CAGCAAAGAG AGCTTGTGG GCTTCGAGTT TTTCTTCTTG	12240
AGTAGTCGCT TCTTTGAGAC GCGTTTGGTG TGGCTCAAGG ACGTGCTTGA GGGCGTTCAT	12300
CTTTTCAGAG TGAAGCGTTG CCTTCCATGA TTGGTAGATA CCAAGTGGTA AGATAATCAA	12360
GCGTACGATA ATGGTTACGA TAATGATAGC GACACCAAAG CCTAGACCTT TATCAGTAGC	12420
GAAGTACTTG ATGGCTTCAG CCATAGGCGC TCCGATCGTA TTCCAAATAA ATCCTGTTGG	12480

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CTGACCTGTG GTTTTATCGA CATTGACACA GCCAGTCAAG ACAAGCAACA TAGCCACTCC 12540

CATAGCCGAG AGTGCAAAAT CGGGGT 12566

(2) INFORMATION FOR SEQ ID NO: 150:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5238 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 150:

TGACACTCTG TAGGATTGTC GTTAATTGAT TGCTCGTACT CTCTACAATA ACCACCAAAG	60
TAAAAACGAC ATAGAAAGAT AGCATCAGCT GTAGCCATAG CGCCTTTGAC ACCTTCTGGA	120
TGATTATGAG TTACCTCTGC AGAAAGACTC GTAAGTCCTC TAGATGATGG CCATATACCA	180
GTTTTCGCAT AAAAACCACA GTCCATGATC CAAGCACATG GAGAAATACG CATAGCTGAT	240
CCATTCCCAA AGCTATTATA AGGCTCACGG TTATCGCTGT TTAGCCATGC ATTAAACCGA	300
GCACCGTAAT CAGCATTCGG ATACATTCTG CCATATTTCT TCATCGCGTC AATGAAGTCA	360
TCTTTTGTG CACCATTCAT AATTGCTTCT GCAACAGCAC AGTCTATAAC CGTGTCATCT	420
GTAAAAAGC AGTCCTTCG AAATAAGGA AAGTCCTTG TTTTGATATT GTTCCATTG	480
TAAACAGAAC CGACAATATC TCCAATAATT GCTCCAGCA TCAGATTCCT CTTGTTCAT	540
TTTGATGCTT TTTATATTGG TTATCTACCA TATTTATTTT AGAAAATAAC ATCCTGTTGG	600
ATTTTAAAAA TTTCATTTTT TTCAAAATAG GGTTTTACCA TTTCTTTCCA CCTAGCTCTA	660
TGAAAATTGA TTGATTTTAA AGGAGATAGG CCATAATTTC CCAATGCATA ACCATCATTT	720
ACTTCAACAA CAAGTGTCTT GCCATCGCGA GTAACACCGA TATCTAGTCC ATAAGCTATT	780
GGCGCATCTT TCCAACATGA TATCGCTTCA TCAATTACAC TTGCATCAAA TTGTGCATGA	840
TAATCACCTG TATAGGGTCG AACATCTAAT ACGCGACCAT CTAACACAAA ACAACGCCAT	900
TCAGCTATGA ATTCTACAAC CTCCTAATC CATATAGGAT AGTCGAAAGG TAGACCAATA	960
CCTATTAAAT CATGGGTTC ATTACAACCT CTTCAGTAA AGACTTTTGA ACCAGCTTTA	1020
GGCTTAATAA ATTTTCCCCA ATTATCAGGT ATATTCACAA TCTCTCCTAA AATACCAGCA	1080
TAAATCTTTC GACCATAAAA CTCTTTAAGC TCAATAGGAT AGTCATGAAC CGGAACGTTT	1140
AAGCCCATCA TTTTGTAGTAA TGCTCTAGTC TCCATTATAT AATCTACAAC TATATCTTCA	1200
CTTGTTAACT CTTTATTTC AGAAAAAGAT TGATATAAAA TAACTTCTTC TCCTTGTAAG	1260
TAGGCACCTA CTTGAGCATT GTATTTATTA ATTGAAACCT CACTTGGTAA TTTACTTTGT	1320

1007

CTAATATAAA CAACCATTTT ATCACTCCTA TATCACTAGT GTTACACCAA TTTGTAAAAA	1380
ATAATAGCAA TTTTGCTCTT ATTTTTTTGA GTAAATAGCC CCCATAATAT CATCGAAATA	1440
ATCAACGGTA TTTAGGAGTA ATTCAATAAC CTGGGACTTT GTTAGTCGCA TTCCCCTTCT	1500
ATCTCTAGCA TCTTCTACTA AATTTTCAAG TTTCTCTAGA TTTTATCAT CCAAGCTAAT	1560
CATTATCTA TTTTATCGG TTGCCATTTT CATCACCTCA AGTTAATTCT ATCACAGGTG	1620
TAACTAGT GTCAACTGGC TTTTATAATA CATTAGTTTA AAAGTGGAGA GGATTTTAA	1680
CACAGTAACT TTAAATCTTT GGTATTAAAA AATTTTCACA ATATTTATAG AAATAAAATC	1740
TGTCTCAAAT CAGTTATCAA ATCTAGTATA AATTATGAGC GGCTACTCTA ATACTTTCCC	1800
TCTAAACAAG AAAAAGACTT ACACTCAAGG GTTTTCTTCC CCCCTTCGT TATAACGTTT	1860
TGACTCTTTT ACTAGCAAAG GTATATACTC ACAAGGAACT TTGGTTGACT ATTGAATCTC	1920
TCCAACCTCT TCTTTAACAT ATCCTTCTAC ATCTTCAATC TCTACAAACA TTGGGTCTAA	1980
GTGACACAAG AAATGCCAAA CTTCGATCCC TTTTTTCTG TAAAGAATCG CTTACCCGTC	2040
TTCACTTCG AAAAAGCTTC TGTCGATTTC ATATCCGCGG CTTTCTAAGA AGTCTTTTGC	2100
TTTACGATAG TTCGTTTCTC TTGTTTCGAC ATAGGCTTTA ACTTCATGGT TGTAAACGAC	2160
ATATGCATCA ATTTTGAAT ATCCTTCGAT CACTCTATCA TTTTGTAGGG ATAAATTTGA	2220
AATCTCTTTC CAAATAATGT TTACATTTTC CTCAGGATCG AACATAAATT TAGATAAAGG	2280
AACAATATTT CCGTTAAAA TAATTTCCAT ATAATCCGGT ATGTTTTTAG GATTAAAAATA	2340
CTCCACTTCA AAACCATCTT CTGTTTCCAG AGTGTATCCC GGGATTTGAG CTACAAAGGC	2400
TTTCCCATCT TCTATGGAAT CAAATGCTAC TAAATCTTTA GAATAATCAT TTTGGTACAA	2460
TTCCAATATA ACCATCGATA ATCTCTCCAT TTTCATTATC AGGCTAATGT AAATAAGCAC	2520
GTACCTGAC CAATTCAGGC TCTCTGTATC ATCTCATCAT ATTCCTACT TACTTTACGA	2580
GTCTTATACC CAGAACACAC CTTATCGACC TTCGGTCTCA CCTCGTCGCA TTGGCTGAAC	2640
ATCTACTTTT ACTTTGCTGA TGCTTCAACT CGTACAAGCA GTGATACCGC CTCAGCGTGA	2700
TGCGTCAGTG GGA CTCAAAA GGTTCGGGGA ACCTTTTGAG GATTAACCTAC GTTCTCTAA	2760
TAAACTTACA CATTCAACTT GTTCATCATT GTCCAAACCT ATGTTGAGAT TTTCTTCTAT	2820
AATTGGTAGC TTAAAAGTAA TGGATTTTAG CCATTGTCCG TTAGATTGTT TTTCTTCATA	2880
AACTTGAATT TCAGAAATCA AAGCTGAAAT TAACTGCCTA CGCTCTACAT CATTATGAC	2940
TTTATAGAGC TTATCAAAAT AGATCAGAAC CTTATATATG TTATCTCCTG TAAGCTTTTC	3000
AGCTTCAATA GTCTGTTTCT TTGCTTTCGC ATCAATTAGT GATGATTCTA ATTCATCTAG	3060

1008		
TTTGTACATAC ATACGATATA GTCTATCATC TAAATCCTGT TTCCTTCTCT TATAATGCTT	3120	
ATCTTCAACA TCTAAATTAT CTATTTCTCTC AATTAGCTTA AACTTTGTAG AATGACTCTT	3180	
TCTCAATTC TTTTGSTAAT TATCTATTTT TTTTCTTATT TCAGAGGTAT CCACCTTCAT	3240	
GTTGATTTTT TCTTGCATCA TAGAAGCAAA TTTCGGATTA CTTACTATCT TGACAATCAC	3300	
CTCTGCAACA GCATCATCTA ACAATTCTTC TCTAATTGTC TTACTGAATG TACACTTATT	3360	
ACCTCTTATC ATCTGCCTAT GGTTACAACC ATAGTAATAA AAATCTTTAT ACTTTGTGCC	3420	
ATCTTCTTTT TTCTTGATAC ACTTGTTCCTT AACATTCCC ACTCCACATA TCGGGCATTT	3480	
TACAATTCCA GAAAGCAAGT GTGTGCGTGT ATCTTTTCCT TTATTACAT GCTCATATTT	3540	
CTTTGCTTGA GATTTTAGCT TAACCTGAGC AGCTTGCCAA ACTTCATCGG AACTATAGC	3600	
TTTATGTATC CCTTCAGATA TTAGATATTC ATCTTGTTCA ACCTGCTTAT ATTCAATTTCT	3660	
TGTACCATGA ACTTTTCTA AAGTTCTTCT TCCAAATGCT ATTTTCCCAT TATATACAGG	3720	
ATTCTTTAAT ATCTTCTTA TAAGACCTGC ATCAAACAAA GGATTCTTAC CATCTGTCT	3780	
TGGGATTTTT CTAATTCCAT GATTCTCTAA GTATTTAGAT ATCCCATGG CTCCTATCGT	3840	
AGTATTTACA TACTGGTGA AAATCGTTCT TATTGCAACT GCCTCTTCCT CATTTATAAA	3900	
CAGCTTGCCG TCTTCAAGTT TATATCCATA CGGAGCAAAG CCACCATTCC ATTTTCCTTC	3960	
CCCTGCTTTT TGAATGCGAC CTTCCATTGT TTGAATACTG ATGTTTCTCT TTTCTATTTT	4020	
AGCCACAGCT GATAAAACAG AAATCATTTAC TTTCCAGCA TCTTTAGATG AATCAATGCC	4080	
ATCTTCAACG CAGATAAGAT TAACTCCATA ATCCTGCATT ATATGAAGTG TAGAAAGAAC	4140	
ATCAGCGGCA TTTCTTGCAA ATCTTGATAA CTAAACACA AGAACAAAAG ATACTCCATC	4200	
TTTCCAGAT TTTATATCTT CCATCATTCG ATTGAACTGT ATTCTACCTT CAATAGACTT	4260	
GTCAGACTTC CCGGCATCTT CATACTCTCC AACAAATTCA TAATCGTTGT AAATAGCAAA	4320	
AGCTTTCATT CGTGATTTTT GTGCCTCTAA CGAATACCCC TCTATCTGTA TTGACGTAGA	4380	
TACTCGTGTA TAGAGGTATA CTTTTATTTT TTCTTTTGAC ATAGTATTAA CCTCAATATA	4440	
ATTTTCTAT ATCATATATA ATTTTTTAA TTTAAGTTTG GACTATCATT TCAAGTATAT	4500	
TATAACACTT TTATTAGTCC GTCTCAATTT GTGTTTTGTC CATGTCAAAA CTATTTTCA	4560	
TCTCTTGATT TTTTGCTGGC GTTGATCGG GTAGATTATC TAAATCTAAA GCACCAGCAT	4620	
ATTTTGCAAT CAGATTTGCT ATTAAATCAG CCAATCCATT CCAGTCATTG TCCAATATAT	4680	
ACCTCCTCTA AAGTTTTATA TCTAATAATT ATTTGTTTAA TTAAGTTTTT TGACATTGAC	4740	
AAGTGCTTTG GATTAGCAAC ATAGGAATCT CACTTCGCC TCTATCCGG ATGAGCCGGC	4800	
TTCAACCTTA GAAGTATCAT TACCCTCATT TTCTTCATAG CGGATAGGGT ATCCCTCCCT	4860	

1009

ATATTCAAAC TCTTACTTAT CGCTCACTTT CTTTTTGCTT AGCAGAACTT TTTTGGCCGA	4920
ATTATTTCAGC CGAAAGATCT TGACGGATAG GTTATTACGC TCCAAAAATA ATTAACGTCT	4980
TGTCTTGGTC TATTCAATTG TTAAGGTTCA AAATTTATCG AGAGTTATTA ATCTTTTAA	5040
AATTTGACCA TCAGAAAATA TTTATCTTGA TGTAACAAA TTCTATAAT TACCCTCTTA	5100
TACTTAACAG TGAAAAGAAG TCTTTCTTGG TAACCAATTT TGAAATAGAA TTTGCTTATA	5160
TAAAAGGTC CAATTCCCAC TGCATAAATA GCAGTGAATA TTAGACCCTC TTGGTAACTG	5220
TCATCTAAAA GTCTTCTA	5238

(2) INFORMATION FOR SEQ ID NO: 151:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13425 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 151:

GACGATTTAC GAAGAATCGA ACAAGAACCT GCTCCTATCA ATTCCCAACC TCTATCTCTA	60
AAATCTTGCA GTTCATGCTT ATACTTTTTT AAGAAATCTA GAATCATAGA TACGGTAGAT	120
GACATCGTCT GGTGACATT GGTCAAAATA GAACAAACCA AACCGACTCG TTCTATACCT	180
CCAACCTTTC AAATGCATCT CATGTAAATG TTCTTCTTCC TTGTCCAAAT CAACAATGGT	240
GAAAATCCGA AATTCTACTC TGCTATTCAT TGTCTTACCC CAAAATTAGA AAACATGCCT	300
GGCGTTATTT ATTAGATAAT TCTTTCCACT TTGACTCAA TCTCCAAAAA ATATAAGAAA	360
TCTGAATCGC AAAAATATC AATAAAACCC AATCTATTAT GAAAATCAA AACACTTTCC	420
AACTGAAAGA ACTACCTCCA GTGACAACT TTGAGAAAA CGGTAGTAGA GCTAAAAAGA	480
GAAATAAAAT AGGAAGCATC CGCATTGTTA AAATCCGTTT GGCATAAAAA AATCTTTATT	540
TAAACGAAAA TATTATGGCA AAATTTACGC CAGTTTTTGA ACGGCTGATG TAGATATTTT	600
ATACTTTCAA AATGTTTAAA TGTGATTATT TATTTTGA AAATAGATCA CCAGCCCGAC	660
TGAAAGTGCT TATAGAATGA TAATAAGTCG CCTGCCGAAA ACAGCGAAAA ATAGCGGTGT	720
TATGCGGAGA TAATCTGACG CGATGCGAAA GTATATTGCA TACTTATTTT CAACAATTTA	780
GCAGAGTATT TTTATAAGTG TGATATAATA GAAGTATAAT TTGTTCTGAT AGTTTATTTT	840
ATGGAGAAGT AGATTTTATG AATGCGGAGG GTTCAATATG GTTGAGTTTA TAAAGTCTAA	900
GAAAGAAATG AGTGAGGAGG ATATTAAAGC AAATTCATC ACTCCTGCTA TTGTATCCAA	960

1010

AGGATGGAAA AATGGTGAGC ATATCGCTTA CGAAGAATAC TTCACTGATG GTCGAATTGA	1020
AGTTAGAGGA GATAAGGCTC GTCGTAAAGA AGGAAAAAAA TCAGACTATT CACTGTATTA	1080
CCAATTGGGA ACTCGAATTG CAATTGTTGA GGCAAAGGAT AATAAACACA GCGTTCGAGC	1140
AGGATTACAA CAAGCTATTG AATATGGAGA GATTTTAGAT GTTCCATTG TTTATTCTTC	1200
GAATGGTGAT GGCTTTATTG AACACGACCG TATCACGAGA GAAGAACGTG AGCTGGAGTT	1260
AGACGAATTC CCTACTCGTG AAGAATTATT TTCTCGTATG ACGAAGGAAA AAGGATTGAC	1320
GTACGAAATT ACAGAAGCTA TCTCAACTCC ATACTATACA GACGCCTTCT CAATGAAAAAC	1380
GCCACGCTAT TATCAGCAAA TAGCTATCAA CCGTACTATT GAAACAGTTG CCAGAGGACA	1440
AAAACGAGTA ATGTTTGTA TGGCAACAGG AACGGGGAAA ACGTTCATGG CTTTTCAAAT	1500
TATTCATCGC CTTGAAAAAG CTGGTTTGGC TAAACGAGTT TTATTCTTAG CAGATAGAAA	1560
CATCTTAGTA GACCAAACGA TGGCTGAAGA CTTTAGGCCA TTCGAAAAGG TAATGACGAA	1620
AATTACACCA AAACTTTGA CTGCTCCTGA AAAATTAAAT TCTTTTGAAA TTTATCTAGG	1680
GCTTTATCAG CAACTAAGTG GTGAAGATGG AACTGAAACA CATTATCAAA AATTGACAA	1740
AGACTTCTTT GATTAAATCG TAATTGATGA AGCGCACCGT GGTCAGCTA AGGAAAACAG	1800
TAACTGGCGT AAGTAATTG ATTATTTTCA TTCTGCGACA CAGATTGGGA TGACCGCTAC	1860
TCTTAAAGAA ACCAAGAATG CTTCCAATAC GGAATACTTT GTGAGCCAA TCTATACTTA	1920
TAGTTTAAAA CAGGGAATCG AGGATCGTTT TTTGGCTCCA TATCGTGTTA TGAGGGTTAA	1980
TTTAGATGTG GATGTGGATG GTTATCGTCC AGAACTGGA AAAGTTGATG CTAACGGACA	2040
ATTAATAGAA GATAGGTACT ACGGCAGGAA AGATTTTGAT AAAACCATTG TCATTGATGA	2100
TAGAACGCAA AGAGTTGCCA AGTTTGTTTC TGATTATATG AAGCAAAACA ATGCACGATT	2160
TGATAAAACA ATTGTTTTTT GTGTTGATAT TGACCATGCC GAGCGAATGC GTGCTGCACT	2220
TGTAAAAGAG AATCTAGACT TAGTCCAAGA AGACTATCGT TATGTCATGC AAGTAACTGG	2280
TGACAACGCT GAAGGAAAAG CTCAACTGGA TAACTTTATG GATGTCAATT CTAATTTTCC	2340
CGCTATTGTA ACAACGTCTA AATTATTAAC GACAGGAGTT AATGCTAAAA CATGTCGTTT	2400
GATTGTTTTA GACTCTAATA TCCAATCCAT GACTGAATTT AAACAAATTA TTGGTCGTGG	2460
CACACGTCTT TATCCTCAA AGGGGAAAGA ATTTTTTACG ATTATTGATT TTCGAAATGT	2520
TACCAATTTG TTTGCTGACC CTGATTTTGA TGGTGATCCA GTGAAGGTGC TAGAAACAGG	2580
TGCGAAAACA GTCAGTGGTT CTACGCCCGG TTTCGTAGAT GAGGAAGGTG ACCCAGTAGA	2640
AAAATATATC GTTACAGACA AGCAGGTTAC CATTCTTAAT TCTACTGTTC AAGTATTGGA	2700
TGAAAACGGG AAACGTGATTA CCGAAAGCCT GACCGACTAC ACTCGAAAAGA ATATCTTAGG	2760

1011

TAGCTACGCC ACTTTGAACG ATTTTATCAC AGTTTGGCAT ACGGCAGATA AGAAGAAGCT	2820
TATCTTAGAC GAACTTTATA AAAAAGGAGT TTATCTAGAT GCTATTCGAG AGTCGGAGGG	2880
AATATCAGAA CAAGAAATCG ATGATTTTGA TTTACTCCTA AAACCTGCCT ATGGTCAAAA	2940
AGAATTAACC AAAACGGAAC GTATCAATAA ACTCAAACAA AGCGGATATT TATATAATA	3000
TAGTGAGGAA GCGCGTGCTG TTTTGGAAT TTTACTGAAC AAATACATGG ATAAAGGTAT	3060
TGGAGAACTC GAAAGCATTG AAACATTAAA ACTTCCAGAA TTTCAGATAT ATGGTGGAAC	3120
CTTCAAAATC ATCAATACTT ATTTTGGAGA TAAAAACGA TATTTACAAG CAATTAAAGA	3180
ATTGGAGCAA GAGCTATTTA CAGTAGCTTA ATGAAAGGAA AGTATGTCAA TTACATCAT	3240
TGTAATAAGA ATTCAAGATA TCACTCGAAA CGATGCTGGT GTTAATGGTG ATGCTCAACG	3300
TATTGAGCAA ATGTCTTGGT TATTATCTT AAAAATTAT GATAGCCGTG AAATGGTTTG	3360
GGAATTAGAA GAAGACGAGT ATGAGTCAAT TATCCCAGAG GAATTAAAT GCGGAAATTG	3420
GGCTCATGCT CAAAATGGGG AACGGGTATT GACAGGCGAT GAATTACTTG ATTTTGTC	3480
TAACAAGTTA TTCAAAGAGT TGAAAGAGCT TGAAATACT TCAAATATGC CTATTCGAAA	3540
AACGATTGTT AAATCAGCTT TTGAAGATGC GAACAACTAT ATGAAAAATG GCGTCTTGT	3600
ACGCCAAGTC ATCAATGTTA TTGATGAAGT TGATTCAAT AGCCCTGAAG ATCGTCATTC	3660
GTTTAATGAT ATTTACGAAA AAATTCCTAA AGATATTC	3720
ATTTTATACG CCACGTGCAG CGACTGATTT TATTGCCGAA GTTCTTGACC CAAAATTGG	3780
AGAATCAATG GCAGACCTTG CTGCGGAAC AGGAGGCTTC TTGACTTCGA CTCTGAACCG	3840
TTTAAGTAGT CAACGTAAAA CTAGTGAAGA TACCAAAAA TATAATACAG CTGTTT	3900
TATTGAAAAG AAAGCATTTC CTCATCTTTT AGCAGTTACA AATCTGTTTC TTCACGAAAT	3960
TGATGACCTT AAAATTGTTC ATGGAAATAC TTTGGAGAAA AATGTTTCGTG AATATACGGA	4020
TGATGAAAAA TTTGACATTA TTATGATGAA TCCACCTTTT GGAGGGTCAG AATTAGAAAC	4080
AATAAAAAAT AACTTCCAG CAGAATTACG GAGTTCTGAA ACAGCTGATT TATTTATGGC	4140
TGTCATTATG TATCGTTTGA AAGAAAATGG TCGTGTGGA GTTATTTTAC CTGATGGTTT	4200
TCTATTTGGT GAAGGTGTAA AAACTCGCTT GAAACAAAA CTGGTAGATG AGTTCAACTT	4260
GCATACGATT ATTAGGTTGC CTCATAGTGT CTTGACCCG TATACAGGAA TCCATACGAA	4320
CATTCTTTTC TTTGATAAAA CAAAGAAAAC AGAAGAACT TGGTTTTATC GTTTAGATAT	4380
GCCAGATGGT TATAAAAAT TCTCGAAAAC TAAGCCGATG AAGTCAGAAC ACTTCAATCC	4440
TGTTCTGTAC TGGTGGGAAA ATCGTGAAGA GATTCTGGA GGTAAAGTCT ACAAATCTAA	4500

1012

ATCATTTACA CCTAGTGAAT TGGCTGAGTT GAATTATAAT TTAGACCAGT GTGACTTTCC	4560
AAAAGAGGAA GAGGAAATCT TAAATCCCTT TGAGTTGATT CAGAATTATC AAGCGGAAAG	4620
AGCAACTTTA AATCATAAGA TTGATAATGT ATTAGCTGAT ATTTTGCAGT TGTGGAGGA	4680
CAAATAATGA CACCAGAACA ACTTAAAGCA AGTATTCTCC AAAGAGCGAT GGAAGGGAAA	4740
TTAGTGCCGC AAAATCCCAA TGACGAACCT GCAAGTGAAT TATTAAAGAG AATTAAAGCT	4800
GAAAAAGAAA AACTTATCAG TGAAGGAAA ATCAAACGAG ATAAAAAGGA AACTGAGATA	4860
TTTCGTGGTG ATGATGGGAA ACATTATGGG AAGTTTGCTG ATGGAAGCAC TCAAGAAATT	4920
GATGTTCTT ATGATATTCC TGATACTTGG GAGTGGGTGA GGTTTCTAC ATTGGTTGAA	4980
ATTGTCAGAG GTGGCTCTCC ACGACCAATC AaGATTATC TTAATTCTGA AGTAGATGGA	5040
ATAAATTGGA TAAAAATAGG TGATACTGAA AAGGTGAAA AGTATATAAA TAATGTTAAA	5100
GAAAAATCA AAAAATCAGG GCTTAACAAA ACTAGATTG TAAAAAAGG TACATTTTGG	5160
TTAACTAATT CTATGAGTTT TGGTAGACCT TATATTTGA ATGTTGATGG TGCAATACAC	5220
GATGGATGGT TGGCTATTC GAACATGAA AACTCATTA ATAAAGATTA CCTATTCTAT	5280
ATTCTTTCAT CAAATGTAGT TTATTCTCAA TTTCTATCTC TAATTAGTGG AGCTGTTGTG	5340
AAAAACTGA ATAGTGATAA AGTTGCTTCT ATTCTTATCC CTCTCCCCC ACTATCCGAA	5400
CAACAACGAA TAGTAGAAGC AATCGAATCA GCTTTAGAAA AAGTAGATGA ATATGCTGAA	5460
AGTTATAATA GACTAGAACA GCTAGATAAA GAATTTCCAG ATAACTAAA AAAATCTATT	5520
CTTCAATATG CTATGCAAGG AAAATTAGTT GAACAAGACC CAAATGATGA ATCAGTCGAA	5580
GTTTACTTGG AAAAAATACG AGCAGAAAA CAAAACTCT TTGAAGAAGG CAAGATTAAA	5640
AAGAAAGATT TGGACATTC TATTGTTTCC CAAGGAGATG ATAACTCTTA TTATGGGAAT	5700
ATACCTATGA ATTGGGTGTT TATAAAAATA AAAGATATTT TTTCATAAA TACAGGTCTT	5760
TCTTACAAGA AGGCGATTT AAGCATTAAT AATAAAGGTG TTAGAATTAT ACGTGGTGGT	5820
AATATTAAGC CTTTGAATT TTCTCTGTTG GATAATGATT ACTACATTGA TACACAATTC	5880
ATCTCCTCTG AGCAAGTTTA TTTAAACAT AATCAGCTAA TAACACCTGT ATCAACCTCT	5940
TTAGAACATA TTGAAAGTT TGCAAGAATC GATAAAGACT ATGATGGTGT TGTGGCTGGT	6000
GGATTTATTT TCCAATTAAC ACCATTGCGA AGTTCAGAGA TTATTTCAAA ATTTCTATTA	6060
TTTAACTTGT CCTCTCCGTT ATTTTATAAA CAATTGAAAG CAATAACTAA ACTATCAGGT	6120
CAAGCTTTAT ATAATATTCC TAAACTACA CTGAGCGAGC TATTAATTCC GTTAGCTCCT	6180
TTTGAGGAAC AGGAACCTAT TACTCAAAA GTTGAGAAAC TTTTGGAAA AGTAAATCAA	6240
CTTTGAAAT GATTCTTTC ATCTCTTCAT GATTAGAAAT AGGGATTAAT AATTCGAGA	6300

1013

TACTGGTACT ATTTAATGTT TTCCCTTTGA TAGCATCTTT TGAATCACCT AAAGTAGAGA	6360
TAAAGTGGCAA AAATATCATT AAGTAATCTC TGATAATATT TTCTTTATTA GCATAGGGGA	6420
ATATCGATAT AATGGCTTCA TTATGAGTGG CAGGAATATC CAATATGGCA ACTTTTCCAA	6480
TAGATAATTT AAAACTCATT AATAAAGTTC CTTTAGGTGA AATGTCTATT TTCTTTGATT	6540
TTAATGCTAA TTTAGAAATA GATTCTCTCG CATTAGTTAC ATAACCAGAT ATAGGCATAT	6600
CTGATATAGA TACCCAAGGT ATTTAGTTC CCCAAAAAGT AGCTTCACTG CGTGGAGGAG	6660
TTTTTCCTAT TCTGAAGTTA ACTAGGCTAG CAAATTTAAT ATATCTCCAT GCTTCTGGGA	6720
TTTCATATAT AGGATAAGAG GTTGTTTCGT CTTTGTTCCTC ATAATAAGAG CCATAATCAC	6780
AAAAATAGCA GGTAGTCAGT TTGACCACCT GTTATTTTTT ACCAATTAAC AATTTTATCT	6840
ACAATATTTT GTTGTTTCAGT AGCTGTTTTT CTTAGATAAA TTCGAGTAGT TTCTATACTT	6900
TCGTGTCCCA TCAAATCTGC AAGCAAGGCA ATATCATTAT ACTTCGCTAA AAAATTCTTA	6960
GCAAATAAAT GCCTAAAAGA ATGAGGGTAA ATTACGTTAG GATTCATTTT GTATTTATCA	7020
GCATAATTTT TTAAGTGTG AGCAACTCCT CTTGCTGTAA TTGGTTCGTT AAATTTATTC	7080
AAAAATAAAT AACCACTTCG GCGATTTTCT GATTCTAACC AACTAAGACA ACTATTTCTT	7140
AATTTTTTAG GAATGTACAG TCTACGAATT TTACCACCTT TTGAGTAAAT GTCAAAATAA	7200
CCGATTTCTA CATGCTCTAC TTTTAGTTTA ATAAGTTCAC TTACACGAGC CCCAGTTGCA	7260
CCTAAAAACC AAACGACAAA ATGCCATTTT AAAATACCAT CTTTTTCAA ACTACGTTTA	7320
AGAAAAAGGT AATCAGCATG GCTAATGACA TCTTCTAAAA ACGGTTTTTG CTGTACTTTG	7380
ACAAATTTTA ATTTCAAATC ATCATGACCA ATAAAAGCCA GATATTTATT TACTCCTTGT	7440
AGTCGCAAT TGACAGTTTT AGGTTTAAAA TTGTCTAATA AATATCCTTT GTATTCAAAT	7500
AAATCTTCCA TTTTGAGTTC GTAATTCTCC AAGAAAAATC GAACACCATA AAGGTACGAA	7560
CGCACAGTAT TTTCAGCTAA ACCAGCTTTC TTCAAATGTA ATTCAAAATC TTCAACGTA	7620
AAACTCCTAT CTTATGTTTG ATAGAAATTC CACCGCACGT AAACTATTA TACTAAATTA	7680
GTGCGTCAAT ATGGGCGAAA AATTGTTCGA TTTTATCAAC GATTCTGGAT TGTTCAGGAA	7740
GGGGTGGGAG GGGGATTAAA TATTCTTTTA TAGTTTTCGT TAATAATTCT TTTGTTTTG	7800
TACTACCCGA CGCTTTTCT TCAATAACTG ACTGAACAAT AGGAGAGGAA AGAAAATTAT	7860
AGATGAAATG GCAATTAATA ACCCCCGATA AGACTCTTAT AACTGTAACA TGGCTATCTG	7920
CAACAGCCCA GCCATAAGGA TTTTATTTT CATGGTAAAT AGCTAATCGT CCTAACGTAC	7980
CTAGACCTGT TGAATTCAC ATTAAATCAC CATCTCTTAG TAATCTTCT TTCTGGTAAC	8040

1014

TATGAACTGT TTCGGGATCA ATAAATCTTG CTAAGTCAAT AGAAAAGCCA GACCATTGAT	8100
TACATTTCTG AGCAATCACA GGGTATATAG GAATATTGA ATATTTTGA GACTTCCCTC	8160
TTTGAATGTA GGAGGTTATA TCGTTTAACC TCACCCATTC CCAACTTTCT GGTATTTAC	8220
AAGGTACTTC CTCATAATAA GAGTTATCAT CTCCTTGGGA AACAATAGAA ATGTCCAAAT	8280
CTTTCTTTT AATCTTGCCT TCTTCAAAGA GTTTTGTGTT TTCTGCTCGT ATTTTTC	8340
GTAAACTTC GACTGATTCA TCATTTGGGT CTTGTTCAAC TAATTTTCT TGCATAGCAT	8400
ATTGAAGAAT AGATTTTCTT AGTTTATCTG GAAATCTTT ATCTAGCTGT TCTAGTCTAT	8460
TATAACTTTC AGCATATTCA TCTACTTTT CTAAAGCTGA TTCGATTGCT TCTACTATTC	8520
GTTGTTGTTT GGATAGTGGG GGGAGAGCAA TTAATAATAG ATTAATAATTA TAATCATGTA	8580
TTGCAGGATA ACTTGTCCA GTAGATTTAT TATTAACACG ATTGATAAAA TTATCTGATA	8640
ATAAATAATA TTTCAAATAT GTTTCGTAA GTAAAGTATC CAAAACAATA AATGCTGTAC	8700
TAGCTATCAA ATACTCTTAA AGTTCTCTAA CTACAGCAAT ATTTTCTAGA TATGGTCTAA	8760
CTGTTGAAA TAAGACACTA TTCTGCGAAA CTAATTTCT AGCACGGGAA GCGCTTGT	8820
CAGTGAAAG ATATTGTAGA TTTTGTAGT TGATTATGTT CTTTCTCTA TCAATACTAG	8880
ACGTATCTAT ATACCTAAAG GATTCTCTG GCTTATTTG CCCAAATTC CAATAAATTG	8940
ATTTTATCCT CACCCACTCC CAAGTATCAG GAATATCATA AGGAACATCA ATTTCTTGAG	9000
TGCTTCCATC AGCAAACTTC CCATATCTT TCTTATGTG TTTCAAGTATA TAAAAAGCG	9060
TAAAAATACG CCTATAGATA ATGGGGTTGA AATAGGTTTA TTGTTGATGA GATTGTAGAT	9120
AATTCATTT TTTACTTCCA ATCGAATATT CAAATCCTCC ACCTTTCTG CTTGTAATTG	9180
TTCATCATAA AATTCATAT CTTCAGGATT TTCCCCTGG CAACCTCGG AGAAATATTC	9240
TTCCGCTCGA TCAGGATTCA AAAATCGACA AGCACAAACA AACAGTCGC CATCATCATT	9300
TATTGAGATA ATATAGTAGA TTGAAATAAG ATGTAAACAA ATCGATTAGG AAAGTTAAAT	9360
TAGTTCTAG AAATTTTAG CAGATGTAGT GTACTATTCT AGTCTCAATT TACTATGGCT	9420
TCAAATATAT CTTTCGAAA AATATTTACA GATGTGTAAT TTTGAAGCTT GCAAAAGTTA	9480
GTAAACTTGT AGATTTCGAT TTGAAGTAAC TTGTTTCTT GCCCGATATT GTTTTGA	9540
TTGAATTTT CCATAGTGAC TCCTTAATTT TCTTCTACAC GTCTGATGAT AAATCTAATT	9600
CGCAAAAGAG TCAAGAGGAT TTTTCGAAA ATAAATAGCG ACCGAAATCG CTATTTTAAG	9660
GGTTATAGGT ATTTGATGGC TTAGACTGCT GTGTGACTGT TTACCCACAG GCAATCTTTC	9720
TTCTATATTA GTATTAGTAA AGGTCTAAAT AATTATCAAT TTCCCATTTG GAAACGAAGG	9780
TTGCATAACT TGCCCATTCG ATTCGTTTGG CTTCAAGGAA GCTAGTATAG ATGTGATCTC	9840

1015

CGAGAGCAGC TTTAACCCT TCATCTTCTG TCAAAGCTTT CAAAGCGTTG TGAAGAGTTG	9900
ATGGAAGGTC TGTAATACCA GCTTCCTTGC GCTCTTCTGC TGTCATGATG TAGATATTTT	9960
CTTCGATAGG AGCTGGTGCT TCGATTTTAT TTTCAATACC ATACAAACCA ACTTCCAAAA	10020
GAACAGCCAT AGCAACGTAA GGGTTCGCCA TTGGATCCAC TGAACGCAAC TCAAGACGAG	10080
TTCCCATACC ACGTGAAGCA GGTACGCGCA CAAGTGGCGA ACGGTTACCA CCAGCCCAAG	10140
CAATGTAAAC AGGCGCTTCA TAACCTGGAA CCAAACGTTT GTATGAGTTA ACTGTTGGGT	10200
TCATGATGGC AGTATAGTTG TAAGCATGCT TGATCAAACC GCCTAGGAAA TGGTAAGCTG	10260
TTTCTGACAA CTGCATTCTT TTTGGATCAT TTGGATCAAA GAAGCGGTTA TTTCTTCTG	10320
CATCAAACAA GGACATATTA CAGTGCATAC CTGATCCAGC AATACCAAAT TTTGGCTTCG	10380
CCATAAATGT TGCCTAAAGT CCGTGTTCG GAGCAATGGT TTTAACAACA AGCTTAAAGA	10440
TTTGAATCTT ATCACAAGCA CGGAGAACTT CATCGTACTT AAAGTCAATC TCATGCTGTC	10500
CAACCGCAAC CTCGTGGTGA CTCGCTTCTA CTTCAAATCC CATTTTGGTC AAGACATTCA	10560
CAATCTCAGC ACGTGTGTTG TCCGCAAGGT CAGTAGGTGC CAAGTCAAAG TAGCCACCCT	10620
TGTCATTAC TTCAAGTGT GGGTCCCAT TTTTCATCAA CTAAATAGG AAGAATTCTG	10680
GCTCTGGACC AAGGTGAAG GATTGAATC CAACTTCTTC CATGTGACGA AGAGCTCGTT	10740
TCAAATTACC ACGAGGTCA CCCGCAAATG GTTCACCTTC TGTGTATAG ACATCACAGA	10800
TCAGACCTGC AACACTTCCA TTTTCATCTC CCCAAGGGAA GACTGTCCAT GTATCCAAGT	10860
CCGGGTACAA GTACATATCC GACTCATTGA TACGTACAAA ACCTTCAATA GAAGATCCAT	10920
CAACATAAC CTTGTTCGAC AAGACCTTAT CTAAGTGTTC ATCTGTAGCA GGAATTTCTGA	10980
CGTTTTTCAT GGTTCCTCAA ATATCTGAGA ACATAAGACG AATAAAGGTA ACATTTTTTT	11040
CCTTGACTTC ACGACGAATA TCTGCAGCTG TGATTGGCAT AAGTTTTCTC CTTAATCTAT	11100
GACTACTTGC GGTGCTTAA CCGCGACCAA AAGGTGACTG TACTGAAGCA AAACGCCCT	11160
GTGGAGGAG TTCATTGTGA AGTGCACGAC GACTTCAGT CTGACTAACC GCTTCTTGG	11220
ATTTGCTTC ACGTTCAGCA TATTTTCTT TAATGGCAGC GATATTATAA CCTTCAGAGA	11280
TATAATCTTT GATTTCAGC AGACGATCCA TGTCATTCAA GGAATACATG CGACGATTT	11340
CTTCGTTTC ATCGGGCTTG ATCAACTCTT GATCTTCATA ATAACGAATC TGACGCGCCG	11400
ATAGATCGGT CAACTTCATA AACTGCGCA TAGGAAAAAC AGCCATATTT CGGCGAAAT	11460
CTTTTCTCTT CATTTACAAT TTCCTTCTT CTGTCTATTA TAGTCTAAAA AAAGACAAAC	11520
GTCAATGAT AATGTTATAA AATGTAACAT TATTTTCTT TTTCTCTAA AAAGAGACGA	11580

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ATACGATCAA TATCGTAATT TACGATAATT GCGACAAAAA CTCCCATAAA CGTTTCTAAT	11640
ACACGCACAA ACACGTACAA AATTGTCTCA CCACTTGGAA TTGATAGGGT AATGATTAAC	11700
ATAGCTGCTA CACCACCAAT AACCCCTGCT TTGTTATCA TGGCTACATT TGTCATAATG	11760
GTAAACATGG TGCAGATTGG AACAACTACC AAGGTCACCC AAAAGGCTTC GTGAAAAAG	11820
GTATTTAATA AGAAGAAGAC CAAGGCATAG AGTCCACCGA TACTATTTC TAGAATACGC	11880
GAAGTCCCAA AATGAACACT CTCATCAAAA CTCTCCCTCA GGCTAAAAAC GGCTGTCAAA	11940
GCACCAATTT GAAGACCTTT CCAGCCAAAA AAGCCAAAAA TCAAGAGAAC TAGAAAAACA	12000
GCAATACCTG TTTTAAAGST TCGCATACCA AGTTTGAACT GGGATTATC GAATTTATAT	12060
TTTTTAAAAA AACTCATAAT CTCAACTTC TATTTCATT TTATCATAAA TCGGTGATTT	12120
TTATGAGTAA TAGTTGAGAG GAAGCGTTTT TATTTTAAGC AAAAGAAAAG AGGAACTTC	12180
ATCCCTCTCT TCTTTGATTT ATTTATAAAA TCTTATTTTT CTGTCAAGGC TGCAAGTCCT	12240
GGAAGAACCT TACCTTCAAG AAGTTCATT GATGCTCCAC CACCCGTACT AATCCATGAG	12300
AAGTTGTCTG CACGGCCAAG GTTAATCGCT GCGGCAGCTG AGTCACCACC ACCGATGATT	12360
GATTTAACTC CTGGTTGTTT CACGATAGCG TCCATCACAC CGATTGTACC AGCTTGAAA	12420
TCTGGGTTTT CAAATACACC CATAGGTCCG TTCCATACGA CTGTTTTGGC ACCAGTCAA	12480
GCTTCGTCAA ATTTGGCGAT AGATTTTGA CCGATGTCAA GACCAAGGAA GCCTTCAGAA	12540
ACTGCTTCA CTTCACTGTC ACGCACTTCA GTGTAACCAG CAAATGCGTT AGCTTCTTTT	12600
GAGTCAACTG GCAAGATCAA TTTACCATTT GCTTTTTCAA GAAGAGCTTT CGCAACATCC	12660
AATTTGTCTT CTTCTACAAG TGAGTTACCG ATTTGATAC CTTGTGCTTT GTAGAAATGTG	12720
TAAGTCATCC CACCACCGAT AAGGACGTTA TCAGCTTTTT CAAGCAAGTT TTCGATAACA	12780
CCGATCTTGT CTGAACTTT TGAACCACCA AGGATAGCCA CGAATGGACG TTCTGGAGTT	12840
TCAACTGCTT CTTGGATGTA GGCAATTTTCG TTTTCAAGAA GGAAACCAGC AACTGCTTTT	12900
TCAACGTTTG CTGAGATACC AACGTTAGAT GCGTGTGCAC GGTGAGCTGT ACCGAATGCA	12960
TCGTTTACGA AGATACCATC TCCAAGTGAT GCCCAGTATT TACCAAGTTC AGGATCGTTT	13020
TTAGATTCTT TCTTGCCGTC AACATCTTCG TAACGAGTGT TTTCAACCAA GAGAACTTGT	13080
CCATCTTCAA GAGCGTTGAT TGCCGCTTCT AATTCAGCAC CACGAGTGAC ACCTGGGAAA	13140
ACAACATCTT GACCAAGTTT TGCTGCCAAG TCAGCTGCTA CAGGAGCAAG TGATTTACCA	13200
GCTTTATCAG CTTCTTCTTT CACACGTCCA AGGTGAGAGA AAAGAATTGC ACGTCCACCT	13260
TGTTTCGATGA TGACTTAAT AGTTGGAAGA GCTGCTGTGA TACGGTTATC GTTAGTGATT	13320
ACGCCATCTT TCAATGGTAC GTTGAAGTCA ACACGAACGA GGACTTTTTT ACCTTTCAAG	13380

1017

TCAACGTCTT TAACAGTAAG TTTTGCCATG TTACAAAAAC TCCGG

13425

(2) INFORMATION FOR SEQ ID NO: 152:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 905 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 152:

GATTTATCCT ACCGGnGAAT TTCCGGAGGG GTTCTAGCAG CAATCTTAGG AATCTATGAA	60
CGAATGATTG GCTTTCTGGC CCATCCCTTT AAAGACTTTA AAGAAAATGT TTTGTACTTT	120
ATTCCAGTTG CCATCGGTAT GCTTCTGGGA ATCGGCTTAT TTTCTACCC GATTGAATAC	180
CTGCTTGAAA ATTATCAGGT TTTGTATTA TGGAGCTTG CGGGAGCTAT TATCGGTACA	240
GTTCCTAGCC TCCTCAAAGA ATCAACTCGA GAATCTGACC GAGACAAGAT TGATTAGCT	300
TGGTTATGGA CAACCTTTAT CATTTCTGGA TTAGGACTCT ATGCCTTAAA TTTTGTGCTT	360
GGAACCTTAA GCGCCAGCTT TCTTAACTTC GTCCTAGCAG GCGCACTATT GGCCCTTGGC	420
GTCTTGGTTC CTGGCCTCAG CCCATCAAAT TTACTTTTGA TTTTGGGACT CTATGCTCCT	480
ATGTTGACTG GTTTTAAAAC TTTTGATTTC TTGGAACCT TCTTCCGAT TGAATTGGT	540
GCAGGTGCAA CTCTCATCGT TTTTCAAAA TTGATAGATT ATGCCTTAAA CAACTACCAC	600
TCACGCGTCT ATCATTTTAT CATCGGTATC GTCCTATCAA GTACCCCTTTT GATCTTAATT	660
CCAAATGCAG GAAACGCTGA AAGTATCCAA TACACAGGAC TTTCACTTGT CGGTTATGTC	720
ATCATCGCCT TCTTCTTTGC GCTGGGAATC TGGCTTGGTA TTTGGATGAG TCAATTGGAG	780
GATAAATATA AATAATGGCA AAAAAAGTTA AAATCAAAAA AACATTGGTG GAACAAATCC	840
TATCTAAAGC AGCTATCCCT CATCAGGGGA TTCAAATCAA TGCCCTAGAA GGAGAGCTTC	900
CTCAA	905

(2) INFORMATION FOR SEQ ID NO: 153:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4278 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 153:

1018

CTTGAATTAA ATAAAAAACG TCATGCGACT AAGCATTTTA CTGATAAGCT TGTGTATCCC	60
AAAGATGTGC GTACGGCTAT CGAAATTGCA ACCTTAGCGC CAAGCGCCCA CAACAGCCAG	120
CCTTGGAAT TGTGGTGGT ACGTGAGAAA AATGCTGAAC TGGCAAAGTT AGCTTATGGT	180
TCCAATTTTG AACAGGTATC ATCAGCGCCT GTAACCATTG CCTTGTTTAC AGATACGGAC	240
TTAGCCAAAC GTGCTCGTAA GATTGCCCCG GTTGGTGGTG CTAATAACTT TTCTGAAGAG	300
CAACTTCAAT ATTTTATGAA AAATCTGCCA GCTGAGTTTG CCCGTTACAG TGAGCAACAA	360
GTCAGCGACT ACCTAGCTCT CAATGCAGGT TTGGTTGCCA TGAAGTTGGT TCTTGCATTG	420
ACAGACCAAG GAATTGGTTC TAACATTATT CTTGGTTTTG ACAAATCAA AGTTAATGAA	480
GTTTGTGAAA TCGAAGACCG TTTCCGCCCA GAACTCTTGA TCACAGTGGG TTATACAGAC	540
GAAAAATTGG AACCAAGCTA CCGCTTGCCA GTAGATGAAA TCATCGAGAA AAGATAGAAA	600
GAAGAAAAA TGACAGCAAT TGATTTTACA GCAGAAGTAG AAAAACGCAA AGAAGACCTC	660
TTGGCTGACT TGTTTAGCCT TTTGGAAATC AATTCAGAAC GTGATGACAG CAAGGCTGAT	720
GCCCAGCATC CATTTGGGCC TGGTCCAGTA AAAGCCTTGG AGAAATTCCT TGAATCGCA	780
GACCGCGATG GCTACCCAAC TAAGATGTT GATAACTATG CAGGACATTT TGAGTTTGGT	840
GATGGAGAAG AAGTCTCGG AATCTTTGCC CATATGGATG TGGTGCCTGC TGGTAGCGGT	900
TGGGACACAG ACCCTTACAC ACCAACTATC AAAGATGGTC GCCTTTATGC GCGCGGGCT	960
TCGGACGATA AGGGTCCTAC AACAGCTTGT TACTATGGTT TGAATTCAT CAAAGAATTG	1020
GGTCTTCAA CTTCTAAGAA AGTTCGCTTC ATCGTTGGA CAGACGAAGA ATCAGGCTGG	1080
GCAGACATGG ACTACTACTT TGAGCACGTA GGACTTGCCA AACCAGATTT CGTTTCTCA	1140
CCAGATGCTG AATTTCCAAT CATCAATGGT GAAAAAGGAA ATATCACGGA ATACCTCCAC	1200
TTTGCAGGAG AAAATACAGG TGTGCCCCG CTCACAGCT TTACAGGTGG TTTACGTGAA	1260
AATATGGTAC CAGAATCAGC AACAGCAGTC GTTTCAGGTG ACTTGGCTGA CTGCAAGCT	1320
AAACTAGATG CCTTTGTGC AGAACACAAA CTTAGAGGAG AACTCCAAGA AGAAGCTGGC	1380
AAATACAAGG TGACGATCAT TGGTAAATCA GCCCACGGTG CTATGCCTGC TTCAGGTGTC	1440
AATGGCGCAA CTTACCTTGC CCTCTTCTC AGCCAGTTTG GCTTTGCTGG TCCAGCCAAA	1500
GACTACCTTG ACATCGCAGG TAAAATTCTC TTGAACGATC ATGAGGGTGA AAATCTTAAG	1560
ATTGCTCATG TGGATGAAAA GATGGGTGCT CTTTCTATGA ATGCCGGCGT CTTCCACTTC	1620
GATGAAACAA GTGCTGATAA TACCATTGCC CTCAACATCC GCTATCCAAA AGGAACAAGT	1680
CCAGAACAAA TCAAGTCAAT CCTTGAAAC TTGCCAGTTG TTTCTGTTAG CCTGTCTGAA	1740
CACGGTCACA CGCCTCACTA TGTGCCAATG GAAGATCCAC TTGTGCAAAC CTTGTTGAAT	1800

1019

ATCTATGAAA AACAACTGG CTTTAAAGGT CATGAACAAG TCATCGGTGG TGGAACTTT	1860
GGTCGCTTGC TAGAACGCGG AGTTGCCTAC GGTGCTATGT TCCCAGACTC GATTGATACC	1920
ATGCACCAAG CCAATGAATT TATCGCCTTG GATGATCTTT TCCGAGCAGC AGCAATTTAT	1980
GCCGAAGCTA TTTACGAATT GATCAAATAA AACGATAGAA GTCTGAGATC TTATGCTTGG	2040
ACTTCTTTT GGAGGGAAAG TAGATGTCTC AAATCGAAAG AATCAAACAG GCTATCATGG	2100
CGGATTCGCA GAATGCCAGC TATACAGAGC GTGGCATTGA GCCTCTCTTT GCAGCGCCAA	2160
AAACTGCTCG CATCAATATC ATCGGTCAGG CTCGGGACT TAAACTCAA GAAGCAGGCC	2220
TTTACTGGAA AGATAAAGT GGTGACCGCT TCGGGACTG GCTAGGTGTG GATGAAGATA	2280
CCTTTTACAA TTCAGGTAT TTTGCTGTT TGCTATGGA TTTCTACTTT CCAGGACATG	2340
GCAAGTCGGG TGATCTCCG CCTCGTACAG GTTTTGAGA AAAATGGCAT CCGCAGGTCT	2400
TACAGGAATT GCCTGATATT CAGTTAACC TCCTGATTGG GCAATATGCC CAAGCCTACT	2460
ATTTACAGGA GAAATCAGT GGAAGGTAA CGGAGAGGT GAAACTAT AAAGACTATC	2520
TGCCAGCCTA TTTCCGCTA GTTACCCAT CACCACGAAA TCAAATCTGG ATGGCCAAA	2580
ATCCTTGGT TGAGGCAGAA GTAGTGCCAG ATTTGAAAA AGAATTAAA ACCATTTTAT	2640
AGTCAATGAA AATCAAAGAG CAACTAGGA AGCTAGTCGT AGGCTGCTCA AAGTACAGCT	2700
TTGAAGTTGC AGATAAACT GACGAAGTC GTAACATAC CACGGTAAG CGACGCTGAC	2760
GTGGTTTGAA GAGATTTTCG AAGAGTATTA GAAGAAAAA AATGAAAGAA ATAGCCTTG	2820
ACGCATTTTA CCAGCTTTAC CAAAACGACC AGCTTTCTTT AGTGGATGTG AGAGAAGTGG	2880
ATGAGTTTGC AGCTCTTCAT TTAGAAGGTG CCCACAACCT ACCGCTTAGT CAATTGGCTG	2940
ATAGTTATGA TTAATTGGAC AAAGATCGCT TGCATTATAT TATTTGCAA TCTGGAATGA	3000
GATCGGCGCG TGCTTGCCAA TTCCTATTAG AACAAGGTTA TAATGTTATC AATGTCCAGG	3060
GTGGCATGTT AGCCTTTGAA GAACTTTAAA ATTTGCAAT TCTCCTACTT GGTGTGGACT	3120
GGGTAGGAGA GTTTTATTTT TAGATAATTC TTATTTTAA GAAAATTGAA AACATTTAAT	3180
ATTTGCCTCG TGATGCTTTT TTCAGACTCC TAATCGTGGT ATACTAGGTC AGTATTTTAT	3240
AAATATGAAG GAGATTTTA TGGCTAAAA AGGTACCCTA ACAGGTTTGC TCCTGTTTGG	3300
AATATTTTTT GGTGCGGGGA ACTTGATTTT TCCGCCTTCT CTAGGTGCTC TATCTGGAGA	3360
ACATTTTCTT CCTGCCATCG CAGGTTTGT CTTTCAGGC GTTGGTATCG CCGTCTTGAC	3420
CCTTATTATT GGAACGCTAA ATCCTAAAG ATATATCTAC GAGATTTCAA CGAAGATAGC	3480
GCCTTGGTTT GCGACTCTTT ACCTCTCAGT TCTTTACTTG TCAATCGGTC CATTCTTTGC	3540

1020

TACCCACGT ACTGCTACAA CAGCTTACGA AGTAGGGATT AGCCCCCTTT TGTCGGATGC	3600
AAATAAAGGA CTGGCTTGA TTGTATTTAC GGTCTGTAT TTTGCGGCAG CCTATTTGAT	3660
TTGCTTAAT CCATCAAAAA TCTTAGACCG CATTGGACGT ATTTTAACGC CAGCTTTGC	3720
AATTTTGATT GTTATCTTGG TCGTTCTGGG AGCTATCAAA TATGGTGGAA CAAGTCCTCA	3780
AGCTGCTTCA CTGCTTATCA AGCTTCTGCC TTTGGTACAG GTTTCCTAGA AGGTTACAAT	3840
ACCTTGGACG CCCTTGCCTC AGTGGCCTTT AGCGTAATCG CAGTTCAAAC CTTGAAACAA	3900
CTTGATTTT CAAGTAAGAA AGAATACATT TCAACTATTT GGGTTGTTGG TATCGTTGTT	3960
GCCCTTGCCT TCAGCGCTCT TTACATCGGT TTAGGTTTTC TTGGAATCA TTTCCAGTA	4020
CCAGCTGAAG CGATGAAGG TGGAACACCA GGTGTTTACA TCTTGTCACA AGCCACTCAA	4080
GAAATCTTTG GCTCAACAGC TCAACTCTTC CTTGCAGCTA TGGTTACCGT AACCTGCTTC	4140
ACAACGACTG TTGTTTATG TGTGTCAACA GCTGAGTTCT TTAATGAGCG CTTCCACAA	4200
ATCAGCTACA AGGTTTATGC GACAGCCTTT ACCTTGATTG GATTGCTAT TGCCAATTTG	4260
GGTCTTGATG CGATTATC	4278

(2) INFORMATION FOR SEQ ID NO: 154:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1953 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 154:

ACCCGATCAA ATGACAAAAG CTAACCTTGG TGTCGTAGGT ATGGCCGTAA TGGGTCGTAA	60
CCTTGCCCTT AATATTGAAT CTCGTGGTTA CACAGTTGCT ATCTACAACC GTAGTAAAGA	120
AAAAACGGAA GATGTGATTG CTTGCCATCC TGAAAAGAAC TTTGTACCAA GCTATGACGT	180
TGAAAGTTTT GTAAACTCAA TCGAAAAACC TCGTCGTATC ATGCTGATGG TTCAAGCTGG	240
ACCTGGTACA GATGCTACTA TCCAAGCCCT TCTTCCACAC CTTGACAAGG GTGATATCTT	300
GATTGACGGA GGAAATACTT TCTACAAAGA TACCATCCGT CGTAATGAAG AATTGGCAAA	360
CTCTGGTATC AACTTTATCG GTACTGGGGT TTCTGGTGGT GAAAAAGGTG CCCTTGAAGG	420
TCCTTCTATC ATGCCTGGTG GACAAAAAGA AGCCTACGAA TTGGTTGCGG ATGTTCTTGA	480
AGAAATCTCA GCTAAGCAC CAGAAGATGG CAAACCATGT GTGACTTACA TCGGTCCTGA	540
TGGAGCTGGT CACTATGTGA AAATGGTTCA CAATGGTATT GAGTACGGTG ATATGCAATT	600
GATCGCAGAA AGCTATGACT TGATGCAACA CTTGCTAGGC CTTTCTGCAG AAGATATGGC	660

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TGAAATCTTT ACTGAGTGGA ACAAGGGTGA ATTAGACAGC TACTTGATTG AAATCACAGC 720
TGATATCTTG AGCCGTAAAG ACGATGAAGG CCAAGATGGA CCAATCGTAG ACTACATCCT 780
TGATGCTGCA GGTAAACAAG GAACTGGTAA ATGGACTAGC CAATCATCTC TTGACCTTGG 840
TGTACCATTG TCACTGATTA CTGAGTCAGT GTTTGCACGC TACATTTCAA CTTACAAAGA 900
AGAACGTGTA CATGCTAGCA AGGTGCTTCC AAAACCAGCT GCCTTCAACT TTGAAGGAGA 960
CAAGGCTGAA TTGATTGAAA AGATCCGTCA AGCCCTTTAC TTCTCAAAA TCATTTCATA 1020
CGCACAAAGG TTTGCTCAAT TGCCTGTAGC CTCTAAAGAA AACAACTGGA ACTTGCCATT 1080
TGCAGATATC GCATCTATCT GCGGTGATGG CTGTATCATC CGTTCTCGTT TCTTGCAAAA 1140
GATTACAGAT GCTTACAACC GCGATGCAGA TCTTGCCAAC CTTCTTTTGG ACGAGTACTT 1200
CTTGGATGTT ACTGCTAAGT ACCAACAAGC AGTACGTGAT ATCGTAGCTC TTGCGGTTCA 1260
AGCAGGTGTG CCACTGCCAA CTTTCTCAGC AGCTATTACT TACTTTGATA GCTACCGTTC 1320
AGCTGACCTT CCAGCTAACT TGATCCAAGC ACAACGTGAC TACTTTGGTG CTCACACTTA 1380
CCAACGTAAA GACAAAGAAG GAACCTTCCA CTACTCTTGG TATGACGAAA AATAAGTAGG 1440
TCAGCCATGG GGAAACGGAT TTTATTACTT GAGAAAGAAC GAAATCTAGC TCATTTTTTA 1500
AGTTTGGAAC TCCAGAAAGA GCAGTATCGG GTTGATCTGG TAGAGGAGGG GCAAAAAGCC 1560
CTCTCCATGG CTCTTCAGAC AGACTATGAT TTGATGTTAT TGAACGTAA TCTGGGAGAT 1620
ATGATGGCTC AGGATTTTGC AGAAAAATTG AGCCGAACTA AACCTGCCTC AGTCATCATG 1680
ATTTTAGATC ATTGGGAAGA CTGCAAGAA GAGCTGGAAG TTGTTCAAGG TTTTGCAGTT 1740
TCATACATCT ATAAGCCAGT CCTATCGAA AATCTGGTAG CGCGTATTC GCGGATCTTC 1800
CGAGGTCGGG ACTTCATTGA TCAACACTGC AGTCTGATGA AAGTTCCAAG GACCTACCGC 1860
AATCTTAGGA TAGATGTTGA ACATCACACG GTTTATCGTG GTGAAGAGAT GATTGCTCTG 1920
ACACGCCGTG AGTATGACCT TTTGGCGACA CGG 1953

(2) INFORMATION FOR SEQ ID NO: 155:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6474 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 155:

CCGGCAGTAC ACGAGCTTGG GGAACAGCCA CTGGAACGAT GAGGTGTGAG CTCAAAATAT 60

1022

CCTCCAGTTA TGTTCCT AATAGTATAC CGGAAGAGTG AAAGGATTTT ATAATGGAGC 120

GGTTACAAAG AACCTACTTT CTATTAAACA GTATACTATG AAAATGTGAA AATTTAACAT 180

TTTTTTGTAC AAATTTTATA AATTATTGCC TTTTAAATAT CAATAGTTAA TCTCTATCC 240

AGATCCCCCT TGTGTAACT TTATCTTTAT AAGCTTCAAG GCCCCATCC CATCTATTG 300

CAACAATTAG ATCACTTTGT TTTGTAAATA GTTCAAAATT CTTTCAATA ATTACGTTAT 360

CTATACTAAC GTTTAAATTT GGTTCATATA CTAAATTTT TATACCGACA ATCAATAGTT 420

CATTAATTAT ACTTAAATA GCTGACTCTT TGAATTATC TGAATTATAT TTCATCCCCA 480

ATTTATATAT TCCTACTATC TTGGCTTTC GTTCCAATAT TTGTTAACT ATGAACTGTT 540

TTCTATTGT GTTGAAATA TCAATCGCTT CTATCACTGG GGCATTTATT TCTATAAATT 600

CTTTTTTTAA TTGTTAGTA TCTTTGGGAA GACAATATCC TCCAAATCCA AAAGAAGGAT 660

TATTATAAAA ATTTCCAATT CTGGATCTA AACAAACACC TTTTATTACA ACTTCAGCAT 720

TTAAGCTTCT CCTCTCAGCA AAAGAATCTA GTTCATTAATA AAAGCAACAC GGAGAGCTAA 780

GAATGTGTTA GAAAAAGCT TAATTGCTTC TGCTTCAGTA GGAGAACTA ACATAACATT 840

TTTAATATTG GCAGTACTAT GAGTACTAAT CGAAAGGAAC AACTCTGCAA TTTTCTTCC 900

TTCAACTGTC TCATCTCAA CAATATGCG ACTTGATAT AAATTATCAT ATATAGAACA 960

ACCTTCTCTC AAAAATTCAG GGACAAAAAT GATATTTTT GTATCAAACA GCCTTTTAA 1020

TTTGTGTA AAGCCGATCG GAACTGTGA CTTTAAATA ATCTTTCCAT TAGGTTTAC 1080

CCTCAGAATC TTCGATACCG TTGTTGAT TTCATATGTA TTAAACTAC CAATTTTCTC 1140

ATCATAATCT GTCGGAAGCG CAATAATATA ATAATCAATA TTATTTTAA TTTCAGAAAA 1200

TGTATCAAAA AAAGTAATAT TTAAGTTATT CTCGAAAAA AACTTCATAA GCTCTTCATT 1260

TTTAGATGGA AGAATGCCCT TTTTAAATT ATTTATTTT ACAGAATCTA TATCATATGC 1320

AACAACCTTA TATTTAGATG CAAATAGTAA CGCGTAGGCC AGCCCAACAT GCCCCAAACC 1380

AATTACTGCT ATATTCATAA AACTACTTCC TTATTTCTTA ATCCAAAATC TAATAGAATA 1440

AGCTGCCCCA TTCCTTAAAT ACAACTCTT AATATGTTT AAAAGTTTTT CAACTGATTT 1500

CCAGATTATC AAAATCTGAG ATTTATAGCA CAATATTGAT GATATTCTAT CAATATAATT 1560

TTTTTCATCA AGTTCCTCTT GATACATTTT TAATCTTTA GTTTTCCCA TATAACTAAC 1620

CATACTACTA TCACTTACAT ATGGGAAGTC CTCATAATAT ATTACTTTAT AACGCATAAA 1680

TTCAAGCGCC CTTCATATC TATTCACAAA AACATGAGCA ACATGGTCAC CAAGTGAAAG 1740

CGGACAATAT ACGACACATT TGTCGTCTAA ATGCATTAAC AGCTCTTTTA TGATATCATT 1800

CTTTAATGTG TCCTCATTTT TTAATTCAT ATAGATATGA CGGTATAGAA AATTGCCATT 1860

1023

TCTATCTTTC CTATAGAGAC ATTCATAGTA CGATAAGTGT CTAAAATCAC ATTGTAGACG	1920
TTCACAAGCT AACCTGTCCT CTTCTTCCT TTCTTCAATC GGATATTTCC CAAGGTACAC	1980
CAACTTATGA AATTGCTTAG CAGAGGGCTG TAGCTGTTGG CTCAAAGGGT AACCAAGAAA	2040
TATAGTAATA ACAAGTACAA TTTCTCCTTC TGAAGTTAAT TTTGAAATAT AATCACCACA	2100
GGAAAAAATT GCGTCATCTA AATGTGGAGA TAAAAAGATA TACTTAGTAT TGTTACTCAT	2160
AACCATTCCC TCTACAATTT ATCTAAAAAC TCACTAAGTG TCTGATTAAA TTCCACATCA	2220
TCAAAAAAAT TCACCTTATT CTTAATAATG AATATTTTCGT TAAATAAACA TATATATAAA	2280
TATTTCAATA TCCTTTCAAT ATCATCCTCT AAATTCCTCT CAATATTTTG TATCAGCCCA	2340
TTTACAATCT TATTAAAAA GATAAGCTCT TTATCTCTAA AATTAAATAT TTTCATACAA	2400
CTGTTGTATC GAAAAATATA TAAAAAATT TTTACTAATG TTTGAATATT TAAACAATA	2460
AATAAATGAG TTGTACCCGG GACACTATTT ATGTTATCAA GAACACTATC TTGAAACCTC	2520
AACTCACAGT TCTTTTGTG AAATTCCTTT TTATCGTTTA GATCTGATAT TTTTGTAGAC	2580
ATTTCAACAA TCTCAGACAT TTATATGGA TATCTAGGAT GAATGCCAAA ACTATGCAA	2640
ATGAACTGCA CCCCCAAGT TAGACAGAAT AAATCTAACT TTTGGGGTGC AGTTCATAAG	2700
ATTGGGATAT TTTTTTTTAG CTAGAAGTAG TAGAAATATA TAGTCAAATA ACAGATACCT	2760
TAAAGGTTTC TCATCTACAT AAAAAAATGA TACTTTTTTC TCTTCAGTAA TTACCTCATA	2820
AGCTTCACAA TAGAATCTCA TGTTTCCCTC CCCTATATTC TTAAATAAAA TCCTTTGGAA	2880
ATTGATATAT CTTAGTAAAA TATTGTTTAA GTTCCGGATG CGGAGCATGG GTAACAATA	2940
TGACAGTCAA ATCCTCTCTA TCTAATATCT TACGTTCAAT CGCTAACGAA GTTCTCCTAT	3000
CGATAGCAGA AGTTCCCTCG TCAATTAATA CTATTTTCTT ATTTCTAATT AGCCCTCTAG	3060
CTAAAGTAAT TTTTGTTC TGCCCTCCTG ACAGTAATCT CCCATCATCA CCAACATAAT	3120
AATCTAAAAT GTTATTAGGA AAATCTTTTA CACTCAAACC AACTTGCTCT AAAGACTGTA	3180
GTATTTCTTC ATCAGTATAA TTTTCTTCCA ATAAAATATT ATCTCTAATC GTACCTTCAA	3240
ACAAATAAGC TTTTGTATCT ACATATAGAA CATTCGAAAC CATATTTAAA TAGGAGGTTT	3300
TTTTTATATC ATCCCGCAG AATCGCAATT CTCCACTATA ATCTCTCAA AAGCCATTCA	3360
ATAATTTTAA TAATGTAGAT TTCCCGCTTC CACTTTCACC TAAAATTAAA TACTTTTCAT	3420
TACGTTGAAA AAAAAAATT AAGTTTTTAA ATATTTCTTT ATCTCCATAC TTATAGCAA	3480
TATTTTGTGC TTCATATAAC GGAAAACTC TATTCACCTC ATTTGGTTCG ATATCATTTCA	3540
TTTTATTTGA CTCAATTGGA TTAATTGAAT ACAATTTTAA AAAAATAGGC TTCGTACCAA	3600

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TAATAGAGGA TAATTGACCT CCTAATTCAC CTAGCGCTGT AAAAATAACA CCTGTTAGTG	3660	
CTCCTATTGC TTCAATAGTA CCAATTTTCA CTATTCCTTT TATTGCAAGA TAGCCTGTTA	3720	
AAAAAACGAG AGATATCTGA AAAAAAATAT TGAGAAAGAA GCTAATAGCG CCTGCTAACG	3780	
TTTCTACAGT TGTCTTTCTT TGTATAACCA TCTTTAATAA AATTCCTGCT TCTTTAATTT	3840	
TCTTAGGCAA TACATATAAA AGATTCAAGG ACGCTAACAC ATCAAATCCA TTCAATATAG	3900	
TCTCACTAGA TTTTAAAAA GCTTCATTTT GGTAGTTAA ATTTAGACTA ACTTCTCGCA	3960	
TTTTCGATGC AAAGATTTT GGTACAAGTA GCATAATCAT TAATGAAAAC AAGGTGGCTA	4020	
CAGTCAATGA CCAATGATAG TGATTAAGAG TCACAACGTC AAATATAGTA CCAGAAATTC	4080	
CTTTTATTAC TAAAAAAGT TGTTTAAACG CCTGATCATT TAAAGTCTGA ACATCATTAT	4140	
TTAGCCACGA AAGATATGTT CCTGATGATT TACTATGAAA TTCTTGATAG GTAGAGTTAG	4200	
AGATGTCTGT GGCAACTCTA TTTGCAATCT CTAGATTAAA CTCTTGGATC ACTTCAACCT	4260	
GATAATTTTT CACTACCCAG TCAAGGAATA TTATCCCACA CCAGACAATC ATTTGGTAGA	4320	
TTGACAATTT CAAAAACCGC TCTAAATTCA TCGCAATTAA TTCATTCAAC ACCAGAGCAT	4380	
TAATAGTTGC TGCATAAAT AGCAATAAT GACCAGCAAC AATAAATATC GTTAATAAAC	4440	
TAAATTTTTT TATATTGAT TTTATAATAG TATACACAAT AGTTTCTCAC TTTCTAAAT	4500	
TTAATTGAAC ATAGTTTCA TATATACAAT AGAAAAACC AAAATGATAT AATAACATAT	4560	
ATTTCAAAA AGAATTCGT TAAAAATTTT TTCTTCTCTT GCCTTCTTGA TTACTTTTAA	4620	
AGCCTTGCA TGTCTCCTA TTAATAGTAA CCGCTTTATG TTTAAAGAAT AATATTCTT	4680	
TGTAACCAAT ATTCTCTCGT TGAAACTCAA TAAATTAAAA TATTTCCTAC AGTAATTATA	4740	
ATATTCTTCA TCTGCATTAA TTGTTTTTTG TGCTACTCCA GTGATACCGT TTTCTTTACT	4800	
GTGAGCGTAG TAATTCACCA AGAATTCCTG CACTATATCA ATTTGGTATC CTTGAACAAG	4860	
TAGTTTTAAT AAAACAACAC CGTCCTGATG TGAATCTATT TTCTCAAAAC CATTAAATTAA	4920	
TTCTAGCACC TCTTTTTTAC ACAACCAAAA TGACGTACCT GCTATATTGT GAACCATTTG	4980	
AACAAACAAG GGATTTCCAA CAAATCGGT CTTCCTCTCT TCTCGGTGAC CATTTGGATA	5040	
AATTATTATT CCATAACTAC AAATAAAGC TAAATCTTC ATTCTACTCT TTTTAAACA	5100	
AGCCATCAAC TTTAAATTC GATCTGGCAT ATATTATCA TCATCGTCTA AAAATGATAT	5160	
ATACTTACCT CTAGAATTTT TGATACCTAT GTTCTGGCA TTAGTTGCAC CTAAATCTTC	5220	
ATTACTTAAA ATTAACCTAA TTCTATGATT GGTATAGCCA AATTGATGGA TAATTTTATT	5280	
TCTTAAATTT ACATTACTAT AATTATCATC AATAATTATA ACTTCGATAT TTTTATAACT	5340	
TTGATGTAAC CACTTTTCA CAGCTCTAAT CAGAGATTCA TACCTATTAT GTGTTGGTAT	5400	

1025

TATAATACTT ACTAATTCCT GATCTATATT CCTATCCATG ACTACTCTTC TCTAATAATT	5460
CATCATATAC TCTCATGGTT TCTACAAACA TTTTGTGCAC AGAAAAATGT TTTCTTATTT	5520
TTGATTTACT ATTCTCACCT ATATATTTCA AATACTCAGA ATCATTGAGT AAAAAATTAG	5580
CACAAGCACA CACTCCCTCA ACATCTTCCT TCTCAAATAA AAATCCATCA ACCCTATGTT	5640
CAATAATTC ACTTAACCCG CCAACATTAC TAGCTAAAAC CGGAGTTCCT TGTGACATTG	5700
ACTCTAAAAC ACACATAGGT ATTCCTTCCTG TATCAGAAGG AATATACAAT AAATCCGATA	5760
TTTGGTAAC TATAGTAGCT GGATAGATTT CACCAAGTAA CCTGAAATTA TCTCTACATT	5820
TCAAATGGCA AATTTTTCT TCAAAGCAG CCCACATACT ACCATTTCCA GCCATAATAA	5880
AAATCACATC TTCTCTGACT AAAAATAATT TTTCTGCAA TTCAAGGAAT CTATCCGGCC	5940
TTTTTCTGG ATCCAACCTT CCAACATAAC AAATGATTTT TTGTTATTTG GAATACAAAA	6000
TTCTTTTTTA AAGTCTTGAA CACCTACTAC ATCTAAATCG CTATTGATA CATTAATTCC	6060
GTTATTTATT GCAACTATCT TCTTATTTT TATTATACTC TCCAATCTTT TTTTTCATAG	6120
TTTCAGATAC ACAAATAAAA GCATCTCCCA TAGAATATGT CCAAAAATCA AAATAAGTCA	6180
AGAATTTCTT TTTTAAGTTA TATTCAACCC ATCCATGGCA TGTTATCACT GTCTTAACCT	6240
TTCCAAATCC ATCTTGTC AATTTTTTTA ACATATATAA AAAATAATTA GTTGAGTAGC	6300
CATGACAGTG TATAAGTTGG ATTTTAAATA ATTTTAAAT ATTTTAAACG TGTAAGGCAG	6360
TTTCAAAATT ATTTGAACAT TGAGTACAAT CAACATAGGC AATATCTAAA TTTTATAAT	6420
CATCAATAAC CTTTGAATCT CTAGATACAA TTATCAAAAT AGGGAATAGA GACA	6474

(2) INFORMATION FOR SEQ ID NO: 156:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4792 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 156:

TATTTAACGA TTTTTCAT GTCATTCCT CCAAATAGA ATACCTTATA ATCTTAACAG	60
AAAAAGAGCA TTTACGCCAT TATATGATAT CTATCTCTGT GATAAGTTT TTTTATGGGT	120
AATTTAAAG ACCAAACGCA AGATGGCAAT CAAGACCACT CCAAAGAGAA CTGTCCGAC	180
TAGATTGCGG TAGCGAAAG CTACCCAAGC TGTGGAAAG ACGGCTAAGA AGTCCAGTCA	240
TTGATTTGA GGAAGACTGC CAACCTTACC TGTCACACG CTTGAAAGAA TCAGGGCAAA	300

1026

GATAATGGAA ACAGGCAAAA ACTTCAAAAA ACGCTCAACA ATCGCAGGCA GGCCCTTATA	360
CTTGACCAAG ATGAAGGGAA TCATACGGGG AATCCAAGTC ACCAAGCCAG AGAAAAATAAC	420
TGCTAATAAA AGATACTTAC TGACCATCTA AAACCACCCC CATGCTACAA CCAAGTAGCG	480
TCGCAAAACAG AACAGCTAGT GACTGAGACA TCACTGTCAA GAGCAAAAAG AAGGACACCG	540
CAACAACCTGC TAGGATAATG AGCAGATTGC GGACAGGAAT CCGTCTTTGC ATAATCTGAA	600
ATTGCGAAGC AAAATACCAA TAAACATCCC AACCAGGGCA AAATCCAAGC CAAAGATTTC	660
TGGATTTGGT AGCAGGCCAC CCAGAGCCGT TCCGACTACT GTCCCCACAA ACCAAGCCAC	720
ATAGCTGTTA AGATTGTTTC CGTGATCCA CATAGGATTT ACCTTGCTCTG TATGGGCCAA	780
TTCACCCATC AAAACGCCAT AGGTCTCATC TGTCAAGATA CTAGACATAC CGATATTGTA	840
CCAAAGACTG GTATGACGGA AATAAGTCGA TGCCTGTAAA CTCACAAAA AGAGACGCAA	900
GTTGATTAGA AAAACCGTCA TAGCAATAGC TGCCACAGGA GCTTGAACCA CAATCAGTGC	960
CAACATGGCA AACTGGGCAC TCCCAGCATA AACAAAGAGA CTCATCAAGC CCATCTCAAC	1020
AGGTGTCACA TAGGGCGCAC CGATAATTCC ACAGGCCAGG CCGATACTGA CATAGCCAAG	1080
AGCCGTTGGC ATGGTGCCT GCGCCCCCTC CTAAATCCT TTTCTTTCA TCTTTCTCCT	1140
CATATTGTCT TAATAATACT CAATGAAAAT CAAAGAGCAA ACTAGGAAAC TAGCCGACGG	1200
TTGCTCAAAA CACTGTTTTC AGGTTCGAGA TAGAACTGAT GAAGTCAGCT CAAAACACTG	1260
TTTTGACCTT GTGGATAGAA CTGACGAAGT CAGCTCAAAA CACCGTTTTC AGGTTCGGA	1320
TAGAACTGAC GAAAGTCAGTA ACCATACCTA CGGCAAAGTG AAGCTGACGT GGTTCGAAGA	1380
GAGTTTCGAA GAGTACAAGT AGGCTGAAAA GAATCCAACC ACAGCATGGA CTATTATATA	1440
GCAGATTGAA ATAAGATGAG AACAAATCGA TTGGGAAAGT AAAATTAATT TCTATAAATG	1500
TTTATAGCAAT TGTTCGTAC TATTTTAGAT TCAGTCTATT ATAACACATT CAGAAAAGAG	1560
AAAAAAGTCT GTTGATTTTC ACCATCATAA AAAGACTGGC AATCCAGTCT CAAACATATA	1620
TTATAGAAAT TCTCCACTAA ATACTTTCAC GAATATTAG AAGCATAACA AAGGCAACTA	1680
GAAGAAATAG CAATAAAACA AAGCTAACTG CCAGAGTTCC AAAGCTAGTA GCAATGGTTA	1740
CCAAAGCTAT TGTAATAAAG CTAGGTAAAA CAACCGTAAT GGCACCGATA GAGGATTGAA	1800
CTGCTCCCAT TGACTCCTCA GGTATTTGTT TAAAAACGAG TTCTTGCAAT CTAGGAGAGA	1860
GAACACCTGC GAAAAAGGCA TCCAAGGTAC TAAAGATGAG AATCCAGTCA AAACGAACTG	1920
TGGCAAATCC TACTAGAAGA AGCAACTGGA TGACAAGTGA GGCATAGAGA GCTGTTTTTA	1980
TGGAAATGGT ATGTTGCAGA TAGCCACTTA CAAGGCTTCC GACAATCAGG GCTGATAATT	2040
CTAGTGTTGC TAACAAGGCA AGAGATTGAC CAGTTTGTA AATCAAAAAG GGCTGGTTCC	2100

1027

TTAAAAATAG AGTGGAATA GGAACCGTAA CATTATCAC TGCTTGA	2160
TAAACAAAAC CAAGAGCACC TTATTCATAT TCCATATCAA TTT	2220
GCTGGCAAAA GGATTTTACA GAGAGTCCTT CTTGATAGCT AATCG	2280
AGAGGTCAGT TTTTATGAAG AGGATACCTA AAAATGCGAT TAAAA	2340
GTAAGGAAAT AAACGGATG GATAGAATGC CTAGTAAGAC TCCTC	2400
TTGTTTTTAC TAAACTAACA GTTGACTGTT TAAAGCCAAT AGCTT	2460
GCCCAATAAT TCTAATGAAA ATCGGAGTGA GCATGGCGCC TGAAA	2520
CAGACAAGAG GTTAATCAGA CAAATAAATG CTACTAGCAA CAAGG	2580
AAAGTGATAA AGACACTATA GAGTAAAGCA AAAATTTTGC AAAA	2640
TCAAGACACG ATGATGTTGA AAATCCGCCA AAACCTCCAG AAAG	2700
GCAGGGTTTC TGAAATCGTG ATGAGTAAAA TCGCCAAAGG GGCAA	2760
CATAATTGAG GAAGGCCAGA TAAAAAATCG TATCCCCAAG CGTGA	2820
TAGTTAATTG CCTAAAATCT CTATTTTGAA GAAATACTTT CATCA	2880
TTCAAAATGG AATCTTTCCC CAAGGATAGA CCGCGATACT ACTAA	2940
TAACATCAAA AGCTGACCAA TGCCATTGTA GACTATATGC AGTCC	3000
TGACTTTGTC ATTCTAAATA AGACTGCAAA TATAAGACCT CCACCC	3060
GTCTGTCAAG ACCCAACCGT GATTACTAAT GTGCGAGACC CCAA	3120
AAGTACATCT AGCCCCCATT TCTTTCCTTT TTCCAGAGCA GTCAT	3180
AATCATGTCT TCAAAAATGG GACCTGCAAT CACAGGATAA AAAAA	3240
TGTAGCCCCT GTAAAAGTCG GAGCAGCATG TTGATAAGAA ATTTCA	3300
GAAAAGAAAA AAGGTAACGA AATTCCAAAC AACAAAAGCA AGCAG	3360
GAAAAGATAG GATCCTTTAA ACTTCTFACT ATTGATTTTC TGCC	3420
CATAGCAATA AGAGCAAATA AAACCACAAG AAAATTCAAC ATCAT	3480
GGCAAAGTCA GATAGCCCAG TAACAAGGTC GCTGCGTAAA ACTAG	3540
GTCAGCAATA ACTAGTAGAA AAATAATAAT AAAGTAGCGG TGTG	3600
ATATCACCTT TCTAATATCC AAATACCAAT AAAGTAACAA TGAG	3660
GAAGCATGCA GAGCTATAGC CCAATAGATG GATCGGGTGT AGCG	3720
ATCAAGCCCA TTCCAAAATA CTTTATGAAA TCTGTCGTTA TCCA	3780
TGCATAGCGC CAAATATGGC AGCGGAAACA AGAACATCAA GATAG	3840

1028

GATAAACTTG TCATCAAAAG ACCACGACAA ACAACCTCTT CTGATACAGG TGCGATAATA	3900
CTAGTATAAA GTATTGCGGT AACAAAATAG CTAATTCCTG TTAAATTGGT GGCTACTTCT	3960
ACGACTGTAC TTCCATTCTG GGTACGAGGA AAGATATAGG TTGTTAGATT TGCCACACG	4020
AACAATAAGA AAAAAGAAAG AAGGAAAACA CCCAGGTAAG ACCAACGAAA CTGGAAACGA	4080
CCCACTCTT TCCAATGTT ACTTTTGACA AAAGCAATTG TAGCTATAGT TCCCAGAATA	4140
AGTACCAATA AAACCTGGAA CACATAGTAC ATATTATCAG ACAAAGCAAC CATAAAATCT	4200
AAGTCTGATG TGACATTAA AATGAGGTAA TAAGTCAAAA TCAACAAGCC AGTTGCTAGG	4260
TGAAATTTCA CTTCTTTCAT TTTCTTCATC CTATTATCTC CTATAAGAGC CTATCTTCTA	4320
CGGCGGCCAA ACAATCCATC TGCTAAATCT ATAGTCCAAT CAAAAGCTCC ACGATTAGGA	4380
CTCATCCCTT GATTGCCCCA ACCAGGGTAA ATTCTTGGGA CGCCCCAACC AGATATACCA	4440
CTTCTTCCAC CACCTCCCAT AGAATTTACG AGGTTGCCTC CTCTAACATC TTGCAACTCA	4500
GCTTCTGTCA ATTCCATTGT TTCTGCAAAT TGTAAATTTA ACATCTTTTA CACTCCTTCA	4560
ATTATCTTCA TTTGTAAACC ACTTCTGCGA CCTAGGATTT GCTTCAAGTG CTTTACAAGT	4620
ACAGTATAAC ACGAACATTG GCTTATTTTA GAAAATCGCA TATTTGATAT TTTTCTTAT	4680
AGAAATTTCA GATTGCGAT TTTGGTGAAT TTGATTACTT CTCTGGTATA ATAAAGTTAC	4740
TACTAATGAG GAGTGGAGAA ATATGAAGAA ACAAATTTTA ACATTATTGA AA	4792

(2) INFORMATION FOR SEQ ID NO: 157:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2156 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 157:

CCGTTCTCGG CGACGGCCAT CTGATGAAGC TATTTATGAG GGAACTGGC AAGCTGGAGA	60
GTCAGAGTAT CTAGTCTTTC ACCGATTGCT GTGGCAGCAG ATGTGCAGGG AAAAGGAGTT	120
GCTCAAACCT TCTTAGAGGG CTTGATTGAA GGTPTTGATT ATCTTGATTT TCGCTCAGAT	180
ACGCATGCTG AAAACAAGGT TATGCAACAT ATTTTGTAAA AACTTGGTTT TAAACAAGTC	240
GGTAAGATGC CAGTAGATGG CGAACGCTTG GCCTATCAAG AATTAAAGAA ATAATGCAAA	300
AGAAGTATGT AAAATCCTC TACTCCTCAC CAATTGGTAT TCTATCACTT GTAGCTGATG	360
ACCATTATTT GTATGGAATT TGGGTCAGG AGCAGAAGCA TTTTGAGAGG GGAAGTAGGAG	420
ATGAAACGAT AGAAGAAGTT GTTAGTCATC CTATTTTAGA CCCAGTTATT GCTTGCTTAG	480

1029

ATGATTACTT TAAAGGCAAG CCTCAGGATT TATCCAACTT GCTCTTGGCG CCAATCGGAA	540
CGAATTTTGA AAAGAGAGTT TGGGACTATT TACAGGGCAT TCCTTATGGT CAGACAGTGA	600
CCTATGGACA AATTGCTCAA GACCTGCAAG TGGCTTCTGC TCAAGCAATT GGTGGAGCAG	660
TGGGACGCAA TCCTTGGTCT ATCCTAGTAC CTTGTTCATG TGTGTTGGGA GCAGGCAAGC	720
GTCTGACAGG TTATGCTGCA GGAGTGGAAA AGAAAGCTTG GCTCTTGGAG CATGAAGGAG	780
TAGATTTTAA AGATAGAAGC AATAGAAGGA GAAGCACATG TTAGAATTTA TCGAATACCC	840
CAAATGTTCA ACTTGTA AAA AAGCAAAACA AGAATTAAAT CAATTAGGTG TGGACTATAA	900
AGCCGTCCAT ATCGTGAAG AACACCTAG CCAAGAAGTC ATTTTGAATT GGCTAGAAAC	960
CTCAGGATTT GAATTGAAGC AATTTTCAA CACCAGTGGT ATCAAATACC GTGAATTAGG	1020
GCTAAAAGAT AAGGTAGGAA GTTTGTCAA CCAAGAAGCG GCTGAGTTGC TAGCAAGTGA	1080
CGGTATGTTG TTA AACGGC CCATTTTAGT AGAAATGGA ACTGTTAAGC AAATCGGTTA	1140
TCGAAATCT TATGAGGAAC TGGGACTGAA ATAGTTTTTA TCTATCTCTT TGATAGATAA	1200
AATATATAAC TTCCCTGTTT CAAAGTATGA TAACTAGTA GGTAGACAAA GTCTGTATCT	1260
GACCGTAGCA AATAATTCA TTGACGGCAG AAGCATGGTA GCATGAATCA TTATCAGAAG	1320
AGGATGTTTT TATGAATGTT ACAACGATTT TAGCATCAGA TTGGTACCAA AACTTGATGC	1380
AATTGATTCC GGATGGCAAG CTGTTTAGCC TACGTTCCGT CTTTGATGGA ATCCCTAGAA	1440
TTGTCCAACA ACTTCCAACA ACAATTATGT TGACAATTGG TGGTGCCCTT TTTGGCTTGG	1500
TTTTGGCGCT TCTTTTGCC ATTGTGAAGA TCAATCGTGT CAAGATTTTA TATCCCTTGC	1560
AGGCCTTCTT TGTTAGTTT TTAAGGGA CACcGATTTT GGTGCAACTC ATGTTGACCT	1620
ACTACGGAAT CCCTTTGGCT TTGAAAGCCC TCAATCAGCA ATGGGGAAC TGTCTCAATA	1680
TCAATGCGAT TCCAGCTGCA GCTTTTGCGA TTGTCGCCCT TGCCTTTAAT GAGGCAGCTT	1740
ATGCTAGTGA AACCATTCTG GCAGCCATTC TCTCAGTTAA TCCTGGTGAG ATTGAGGCGG	1800
CACGCAGTCT GGGTATGACC CGAGCGCAAG TTTATCGACG AGTGATTATT CCTAATGCAG	1860
CGGTGGTAGC TACTCCAACC TTGATTAAAT CCCTCATCGG TTTGACCAAG GGAACATCTC	1920
TAGCTTTTAG TGCGGGTGTT GTGGAAGTCT TTGCCCAAGC TCAGATTCTA GGTGGAGCTG	1980
ATTATCGCTA TTTGAACGC TTCATCTCCG TTGCCCTTGT TTATTGGGTA GTCAATATCG	2040
GAATTGAAAG CCTCGGTCGT TTCATCGAGA GAAAAATGGC TATTTCTGCA CCTGATACAG	2100
TGCAACAGAT GTGAAAGGAG ACCTTCGTTA ATGATTAAGA TTTCGAATTT AAGCAA	2156

(2) INFORMATION FOR SEQ ID NO: 158:

1030

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3140 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 158:

GTATCTCTAC ACATGTCTTC AATCGATTTT GTTGTCCTCC AATTTAATTC CTTATATGCT	60
TTGTCTGCAT TTGCATAACA AGTTGCAACG TCTCCTGAAC GTCTTGGAAC TATTTTATAA	120
GGAATAGGGA TCTTATTAAC ACTTTCAAAT GTATTTACAA GTTGTAATAC ACTAGTGCCT	180
TCTCCCGAGC CTAGGTTATA GATATAACA TCTGTTTTT CAGATACTTT TTCTAAAGCT	240
TTTATATGTC CTATTGCTAA ATCTACTACA TGGATATAAT CACGCACACC AGTACCATCA	300
AGCGTATCAT AATCATTTCC GAACACACTT AGCTCTGATA GCTTACCTAC CGCTACTTGT	360
GCAATATAAG GCATCAAGTT GTTAGGAATT CCTGAGGGAT CTTCCCAAT CAAACCAGAC	420
TCATGAGCAC CAATTGGATT GAAATAACGA AGCAACGCAA TACTCCATTC TGAATCTGCC	480
ACATGAACAT CTTTTAAAT TTGCTCAAGC ATCACTTTCG TATACCCATA AGGATTTGTC	540
GCACCTGTTT GCATCGTCTC AATTAGAGGT GACTGATTGT TAATTCCATA TACAGTCGCA	600
CTTGAAGAAA AGACAATCTT TTAAACATTA AATTCTGACA TCACCTCAAC AAGTGCCAAAT	660
CTACTCATAA TATTATTTTT GTAGTACATC ACAGGCTTTT GCACGGATTC TCCGACAGCT	720
TTATAACCTG CAAAATGAAT TGCAGCATCA ATCGATTCTT GTTCAAATAC CTTTCTCAAT	780
GCTTGTTTAT CACAAACATC TAATTCGTAA AACACGGGAC GTATTCCTGT AATTGCTTCA	840
ATACGGTCTA GCACCAAGAT GCTAGAGTTC GAAAGGTTGT CGACAATGAT AACTTCCTTT	900
CCTAAATTTA GTAATTCTAC TACGGTATGG CTACCAATAT AACCAGCTCC GCCTGTTACC	960
AATATTGCCA TCTGGGTTTC CTCCTAATTA ATTCCAACCG ACTTAACAAA TCTCATAAAC	1020
GCTTCATGCC CAGACGGTGT ATTCTTATAA ACTCCTGCAT CTTCCAGAAC TCTCGCAAAC	1080
ACTTGTCCTG CTTCTGTTG AACTACGCTA TTAACCTCTT CTTTATTAAT GCGAGGATAT	1140
TTTTCTTTCA ATTGGTCGGC CCATTCTAAA TGATAATCCG CAATTGCATT ATCCTCTCCT	1200
AAAAGATATT TTCCAACCTC TTCTAACTCT GGTTCAAAC GAGGTGGTAA TATCGCAAGT	1260
CCCATCACTT CGATTAACCC GATATTTTCC TTTTAAATAT GTTGATACATC TTGATGAGGA	1320
TGGAACAC CATCTGGGTA TTGTTCACTA GTATGATTAT CTCTTAGAAC AATATCTAAT	1380
TCGTATCTCC CGTCCACTTT ACGAGCAATA GGAGTCACCG TATGGTGTGG GACATCTTCA	1440
GTCATAGCAA TGATGTCTAC TTCTAAATCT GAATATTCTC TCCACTTATT TAGAATTTTA	1500

1031

GTAGCTAAAT CTAACAAGCG ATTTTTATTT TCACTTTGTA ACCTAATTAC TGACATTGGC 1560
CATTTTACAA TACCAGCATT AACATCCTCA AAGTCTTTAA AACAAAATTC ACTCTCAAAT 1620
TTTGCTTTTT CCATTGGGAA AATATGTTTC CCTCCCTGGT AGTGGTTATG ACTAAGAATG 1680
GAGCCTCCTG AGATAGGAAG ATCAGAATTT GAACCAGCAA AATATCCTGG CAAAATATCA 1740
ACAATCTCCA ATAATTGTTT AAATGTTTTA GAGGTAATAG CCATTGGTAC ATGTTGACTA 1800
TTCAAAAATA TCGCATGCTC ATTAAAGTAT GAGTAGGGAG AATACTGGAA TCCCCATACT 1860
TCGTCACCAA GTTCAACCG AATAATTCTA TGATTGGAAC GTGCTGGATA ATTTATTCGC 1920
CCCTGATATC CTTCATTTTC CATACATAGT AAACATTTCG GATAATTAGT TGCTTTTACT 1980
AATTTTTCAG CAGCAATTGT TTTTGGATCT TTTTCGGGTT TTGACAAATT TATCGTAATC 2040
TCTAGCTCTC CGTATTTAGT TGATGCTCGA AACTCAATAT TCTTAGCAAT AGCAGAAGTT 2100
TTAATATAAT CACTATCTTT ACTTAACCTA TAAACTCTT CAACTGCTTC TTGAGGTGAT 2160
ATATCATATG AACTCCAAA AATATCATTT AATCGACTAG GTAAAGGAAC TATGAAATTC 2220
ATTAACCTG CTCCTAAACA TTCCTTTTCC TCGATTAAAT CTTTAATTTT ACCGTTTTTT 2280
AAGGCGATTT CCACTAAGTA ATCTTTTATT TGTTTCAGGT CATTTTCATC GGAAATGCGA 2340
TCAATTCCTT CCTCACCTAT TAACGCTAGT ACTCTATTTT TCACATATAT TTTGTCAATT 2400
TCATTATACA TTCCGTATTC AATTACTCTA TCAACAAAAT TATCAATAAT TGTTTTCATA 2460
TATTTTCTT TCTAATTTAT GTTCCCATAT TTTCTATACA TTATCCATTT ATAAATTGCT 2520
TGCGTAGTAT GAGCAATTTT ATCAAGGTGA TGAATAATAT CTAAAGCACT AATTACTTCA 2580
GAAACGTTCC CATCATCTTC AAATATGTAA TTCATTATTT TCTTTTCCAT ATTTATACTA 2640
AGCTCTTCTA TCTCATTTCTG TTTTGTGATA ACAACCATAT CTAAACATCC AGATTGTTCC 2700
TCTCTATAAC AAGATATAGC CCTATTCTA TGCAGTCCGA TAACTTCATG AAGTATTTTT 2760
ATTTTGTAAA TAATTTTCTT CAAAATTTCA TTATTTTGAA GAATCTGTAG ATTTTTTAAA 2820
ATTTCAACAA TTCTATCCCC AATACGTTCA ATGTCAGTTG ATATTTTAT TACACTAATA 2880
ATTCTTCTTA AGTCATATGA AACAGGATGT TGTAACAAA TTAATCATA TCCTTTTTTA 2940
TCAATATTTA GAACGACTC ATTTATGATT AAATCTTCTT TAATCAATTC TACTCGTTCT 3000
TCATTTGATA AATATTCAAA TAACTTCTCA TATTTATCAA GCACAGATAC CCAAATGGTC 3060
TCTAAATPAT TTGATAATTC TATAATTCA TTTCTAAAT ATAACCTTAA CATTTAGGTA 3120
CCTCTTCTTA ACAAAGTTTCG 3140

(2) INFORMATION FOR SEQ ID NO: 159:

1032

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9048 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 159:

CCGGATGATT TCCTGGTCAG ATAGGGGGAA AGTGACTTCC TCAGCAATCG CGCGTAGAGT	60
AGGATTC CCTT TCACGGATAA TATCGTTCAT ATCAATTAAG TGAGCAGCTT TTGTAATACG	120
TTCTATTGCA GACATTTTCT CTCCTTATAT TATGTTTAGT GCAGTTAGCT ACTGCCAAAG	180
CCCAAGTGGT ATACTTGGAA TAAGCCACTG TGGATTAGTT CATTTTCTTT CATTACCTCT	240
ACATGATATC ACAAATGAC AAGAATTGAA AGCATTATGG CATTTAGGAT TTATAGAAAA	300
TAGATAGGAA GTTCAATTCA ATTGTGAAAG AAATACTTAT CTGTGATATA ATAAAAAGAA	360
AAGCTTGCA TAAGAAAGTA GGGAGAACGA AGATACAAAG AAGACAAAT CGAAATCAGG	420
GTGGTTTAGC TTTTCGTTT ATGAAGGGCT TGGTAAACTT TTTAGGAGTT ATCGCAAGTG	480
GAGCAATAAG GGATTTGTGG CGATACTCTT GCTAGCAGTT GGTTTATCAA TGGGCTTGGT	540
CTTGTGTTT GAAAGCTTCC AAGGAATCCC TTGACTAGTC AAAACGAGA TACTATTTCT	600
CAAGAGGGGA CTAAGCAAAA GTCTCAGGAG TAGGAAGAGG AAAAACTGC CAGAATTATG	660
GCCACGGGG ATTTGCTCTA CCACGATGGA CTTTCTTTT CAGCTAAAAA AGAAGACGGT	720
ACCTATGACT TTCATGAAAA TTTTGAGTAT GTGACTCCTT GGCTCAAGCA AGGGGACTAA	780
GCAGCAGATT TAGCTATTGG TGATTTTGAA GGAACCATTA ATAAGGATCA TTATTTAGCG	840
GGTTATCTTC TCTTTAATGC TCCTGTTGAA GTTATGGATG CTATTAAGGA GGCAGGTTAT	900
CATGTGCTGG ATTTAGCTCA TAATCATATT TTGGATTCGC AAATTGAGGG AGTTATTICA	960
ACGGCCGATA TTATTGAGAA AGCTGGAATC ACTCCAATCG GAGTTTATAC GCACGAACCA	1020
CGTGATCAGG CTCCGCTGGT CATTAAGGAA GTGAATGGTA TCAAGGTTGC ATTGTTAGCC	1080
TATTCCTATG GTTCAATGG AATTGAGCAG TATATTTCTC AGGAAGACTA TAATCGTTAT	1140
CTTTCAGATT TAAACGAAGA TAAGATGAAG GTTGAAATTG AACGGGCAGA GAAGGAAGCA	1200
GATATCACCA TTATCATGCT TCAGATGGGT GTTGAGTATC GATTGGAACC AACTGAAGAA	1260
CAAAAAGCTC TTTATCACAA GATGATCGAT TTGGGAGCGG ATATTATCTT TGGAGGGCAT	1320
CCTCACGTTG TTGAACCATC TGAAACGGTT GAAAAGATG GAGATAAGAA ACTCATTATC	1380
TATTAAATGG GGAACCTCAT TTCCAATCAA CGAATTGAAT CTATGGGAGA TGAAGAGAAT	1440
GCTAAGTGGA CTGAACGTGG TGTTCATG GATGTCACCA TCAAGAAGAA GGATGGAAAA	1500

1033

ACAACTATCG GAACAGCTAA AGCTCATCCT ACTTGGGTCA ATCGAACACC AAAGGGAACC	1560
TTTTCAACCAG AAGGATATCC CTTGTATCAT TACCAACTT ATATTTTGGA AGATTTTATA	1620
GAGGATGGCA GTCATCGTGA CCAGTTAGAT GAAGCGACTA AGGAACGAAT TGATACAGCC	1680
TATAAAGAAA TGAATGAACA TGTGGGATTG AAGTGGTATT AGCTTGAATC CAGAGGAAAG	1740
TAAATGATGA TTAAGGTAAT TGCGACAGAT ATGGATGGGA CCTTGCTGGA TGCTAGAGGT	1800
CAGCTTGATC TCCCACGATT GGAAAAGATT TTAGATCAGT TGGATCAAAG GGGCATTCGT	1860
TTTGTCATTG CGACGGGCAA TGAAATTCAC CGCATGAGAC AACTACTGAG TCCCTTGGTG	1920
GATCGAGTGG TTCTGGTTGT TGCTAATGGC GCTCGTATTT TTGAAAACAA TGAATTGATT	1980
CAGGCTCAGA CATGGGATGA CGCCATTGTC AACAAAGCTT TGAATCATTT CAAGGGTCGA	2040
GCGTGTCAAG ACCAGTTTGT TGTAACGGGG ATGAAGGGTG ATTTTGTCAA GGAAGGTACG	2100
ATTTTACAG ATCTTGAAAG TTTTATGACT CCAGAAATGA TTGAAAAATT CTACCAACGG	2160
ATGCAATTTG TGGATGAATT AACATCTGAC CTCTTTGGTG GTGTGCTCAA GATGAGCATG	2220
GTGTGTGGTG AGGAACGTTT GAGTTCGGTT TTGGAAGAAA TCAATGCTCT CTTTGATGGC	2280
CGTGCCGAG CTGTATCCAG TGGCTATGGT TGCATTGATA TCCTCCAAGC TGGGATTCAT	2340
AAAGCATGGG GCTTGGAGGA ATTACTCAAG CGCTGGGACT TGAATCCCA AGAAATCATG	2400
GCTTTTGGTG ATAGTGAATA TGATGTTGAA ATGCTTGAAA TGGCTGGAAT TGCCTATGCG	2460
ATGGAAAATG CTGATGAGAA AGCCAAAGCT GTGGCGACTG CTCTAGCACC AGCCAACAGC	2520
CAAGGAGGAG TTTATCAAGT CTTGGAAGAC TGTTAGAAA AAGGAGAATG AAGTGGCAGT	2580
ACAGTTATTA GAAAATTGGC TCCTAAAGGA ACAAGAAAA ATTCAAATA AGTATCGTCA	2640
CCTAAATCAC ATTTCTGTTG TAGAACCAA CATTCCTTTT ATTGGGGATT CCATTGTCGA	2700
GTATTATCCT CTACAGGAGC TATTTGGGAC TTCAAAGACG ATTTGCAATC GAGGAATTCG	2760
TGGCTATCAG ACAGGACTGT TACTAGAGAA CCTTGATGCT CATCTATATG GTGGAGCAGT	2820
AGATAAAATT TTTCTTCTGA TTGGGACAAA TGATATCGGA AAGGATGTTC CTGTGAATGA	2880
GGCTCTCAAT AATCTCGAAG CTATCATTTA ATCCGTTGCT CGCGATTATC CATTGACAGA	2940
GATTAAATTG CTTTCCATTT TGCCTGTCAA TGAGAGAGAG GAGTACCAGC AGGCAGTCTA	3000
TATCCGCTCG AATGAAAAA TTCAGAACTG GAATCAAGCC TATCAAGAGC TTGCATCTGC	3060
CTATATGCAG GTGGAATTTG TGCCAGTATT TGATTGTTTG ACAGACCAAG CAGGCCAACT	3120
CAAAAAAGAA TATACAACTG ATGGACTGCA CCTCAGTATT GCTGGTTATC AGGCTTTGTC	3180
AAAATCCTTG AAAGACTATC TTTACTAAAT AGCTAAATAA TGTTAAATTT GAGCATAATA	3240

1034

TCTTGTA AAAA AATTC TAAAA TCCTTTAAAA TAAAAAGTGA CGGAGGAATT TATGAATGTA	3300
AATCAGATTG TACGGATTAT TCCTACTTTA AAAGCTAATA ATAGAAAATT AAATGAAACA	3360
TTTATATATTG AAACCCTTGG AATGAAGGCC TTGTTAGAAG AATCGGCCTT TCTGTCACTA	3420
GGTGACCAAA CGGGTCTTGA AAAGCTGGTT TTAGAAGAAG CTCCCAGTAT GCCTACTCGT	3480
AAGGTAGAGG GAAGAAAAA ACTAGCTAGA TTGATTGTCA AGGTGGAAAA TCCCTTAGAA	3540
ATTGAAGGAA TCTTATCTAA AACAGATTCG ATTCATCGAT TATATAAAGG TCAAAATGGC	3600
TACGCTTTTG AAATTTCTC ACCAGAAGAT GATTTGATTT TGATTCATGC GGAAGATGAC	3660
ATAGCAAGTC TAGTAGAAGT AGGAGAAAAG CCTGAATTTC AAACAGATTT GGCATCAATT	3720
TCTTTAAGTA AATTTGAGAT TTCTATGGAA TTACATCTCC CAACTGATAT CGAAAGTTTC	3780
TTGGAATCAT CTGAAATTGG GGCATCCCTT GATTTTATTC CAGCTCAGGG GCAGGATTTG	3840
ACTGTGGACA ATACGGTTAC CTGGGACTTA TCTATGCTCA AGTTCTTGGT CAATGAATTA	3900
GACATAGCAA GTCTTCGCCA GAAGTTTGAG TCTACTGAAT ATTTTATTCC TAAGTCTGAA	3960
AAATCTTCC TTGGTAAAGA TAGAAATAAT GTTGAATTGT GGTTTGAAGA AGTATGAAGT	4020
GGACCAAGAT TATTA AAAA ATAGAAGAAC AAATCGAGGC AGGGATTTAT CCCGGAGCCT	4080
CTTTTGCGTA TTTTAAGGAC AATCAATGGA CAGAGTTCTA TTAGGCCAG AGTGACCCAG	4140
AGCATGGCTT GCAGACTGAG GCAGGACTAG TTTATGACCT AGCTAGTGTC AGCAAGGTTG	4200
TTGGGGTTGG CACACTTTGT ACCTTCTTGT GGGAAATAGG TCAATTAGAT ATTGATAGAC	4260
TGGTAATAGA TTTTTTACCT GAGAGTGATT ATCCAGACAT CACTATTCGC CAGCTCTTGA	4320
CTCATGCAAC AGACCTTGAT CCTTTTATTC CTAATCGTGA TCTTTTAACA GCCCCTGAAT	4380
TAAAGGAAGC GATGTTTCAT CTCAACAGAC GAAGTCAGCC AGCCTTTCTT TATTCGGATG	4440
TCCATTTTTT GCTGTTGGGC TTTATTTTGG AAAGAATTTT TAATCAAGAT TTGGATGTGA	4500
TTTTAAAGGA TCAAGTCTGG AAACCTTGGG GAATGACGGA AACTAAGTTT GGGCCAGTTG	4560
AGCTTGCTGT TCCAACAGTT AGAGGTGTAG AGGCAGGCAT AGTGCAATGAT CCCAAGGCTC	4620
GTCTCCTGGG TAGACATGCT GGGAGTGCTG GTTTATTTTC GACTATAAAG GATTTACAAA	4680
TCTTTT TAGA AACTATTTA GCAGATGATT TTGCAAGAGA CTTAATCAA AATTTTCTC	4740
CTTTGGATGA CAAGGAACGT TCTTTAGCAT GGAATTGGA AGGAGATTGG CTAGACCATA	4800
CGGGCTATAC AGGTACCTTT ATCATGTGGA ATCGTCAGAA GCAAGAAGCC ACTATTTTCC	4860
TATCGAATCG TACCTATGAA AAGGACGAGA GAGCTCAATG GATATTAGAC CGCAATCAAG	4920
TGATGAACTT GATTCGCAA GAAGAGTAAG GAGAGACATG TCAAATAGTT TAAAAGGGAC	4980
TTTACTAACA GTTGTGGCTG GTATTGCTTG GGGTTGTCA GGAACGAGTG GCCAATACCT	5040

1035

AATGGCACAC GGAATTTCGG CTCTGGTCTT GACTAACTTG CGTCTTTTAA TCGCTGGTGG	5100
AATTCTCATG CTCTTGGCTT ATGCTACTGC AAAGGATAAA ATACTGGTCT TTTTAAAGGA	5160
TAGAAAGAGT TTGCTGTCTC TTCTTATTTT TGCTCTGATT GGTCTTTTTC TCAACCAATT	5220
CGCCTATCTG TCTGCTATTC AGGAGACCAA TCGGGAACA GCGACGGTGC TTCAGTATGT	5280
TTGTCCTGTC GGAATTTTAA TTTATAGCTG TATCAAGGAT AGGGTGGCAC CGACACTGGG	5340
AGAGATAGTT TCCATCATAT TCGCCATCGG AGGAACCTTC CTGATCGCAA CACATGGGCA	5400
GTTGGACCAG TTATCCATGA CACCTGCTGG TCTGTTCTGG GGTCTCTTTT CTGCCCTGAC	5460
TTATGCTCTG TATATCATTT TACCCATAGC CTTGATTAAA AAGTGGGGGA GCAGCTTGGT	5520
CATTGGGTGT GGAATGGTCA TAGCAGGTTT GGTGCGCCCT CCTTTTACAG GGGTTCTACA	5580
GGCCGATATC CCGACTAGTC TTGATTTTCT CCTTGCGTTT GCAGGCATTA TCCTTATCGG	5640
GACTGTCTTT GCCTATACAG CTTTCCTTAA AGGAGCCAGT CTGATAGGAC CGGTCAAGTC	5700
AAGCTTGTG GCTTCAATTG AGCCAATATC GGCATTTTTC TTTGCCTTCT TAATAATGAA	5760
TGAACAATTT TATCCCATTG ATTTTCTTGG TATGGCAATG ATATTGTTTG CTGTAACCTT	5820
GATTTCTTTG AAAGATTAT TCTTAGAAAA ATAAAAAGA CTCTTTGTCC GTGACAGAGA	5880
GTTTTGCGT GGTAACTAA TTATTTTCAA GATAAAATTC AAAGCGTTCG CCTACATATT	5940
GACTTTTAC GTATTCAAAA GCAGTACCAT CTCTAGGTA GGAAACCTGG GTCAATCCAA	6000
GAATAGCATG TCCTTTTCA ACTTCCAAAT AGTGGGCAAT CTTTCTTTA GCAAGGCGAG	6060
CATAGATGGT CTGTTGAGAT TTGCCGATC GATAGCCATG TTTTGCAGG GTTTGGAAGA	6120
AATGACTGGT GATTTCTTCT TTTTAAAGT CCTTAATGAA TTTTTCAGGA ATAGAAGCAA	6180
CTTCATAAAC TAGGGGAAC TGGTCGGCAT AGCGGACCCG CTCCATTCCG ATAATATTGT	6240
CCGTTGGAAA AATTCCTAGC TTGGCAACTT CTGCTCATT GGAATGGTT TTTTGTAGG	6300
AAATGAGCTG GCTAGAGGA ACTTTACCTT GGGATTGAC AATTTAGTA AAAGTGGTTG	6360
TCCCTCGCAT CTTTCTTGT ACTCGAGTAC TGGAAACAAA GGTGCCGCTT CCTACACGGC	6420
GCTCTAAGAC GCCTTCTTCG ACTAATAGAG ATACGGCTTG GCGAGGGTC ATGCGACTGA	6480
CCGCAAACTG CTCAGCTAAA TCTCTTTCAC TGGGAAGCCT CTCACCAATA GCCCAACGGT	6540
ACTCGTCAAT ATCCTTTTTT ATCTGATCAT GGATTTTAT ATAAGCAGGT AGCATATTTT	6600
TCACTTCATT TCTATCTTTT CTCTATTGTA CCCCAATAA CTAGAAAAAG TCAAACCTCG	6660
CCTTGTTTAG TTGTAATTC GCCCTATTT GTGATAGAAT ATGAGAAAA GATATTTCTT	6720
TTGAGAAAGG AAAAAGATGA GCAACATTT AACTGATTTG CAAGATGTAG AAAAAATCAT	6780

1036

CGTATTGGAC TATGGTAGCC AGTACAACCA GCTGATTTCA CGCCGTATCC GTGAGATTGG	6840
TGTTTTTTTCA GAACTAAAAA GCCATAAAAT TTCAGCTGCT GAAGTTCGTG AAGTCAATCC	6900
TGTAGGAATT ATTCTATCAG GTGGTCCAAA TTCTGTATAT GAAGATGGTT CATTTGATAT	6960
TGACCCAGAA ATCTTCGAAC TCGGAATTCC AATTTTGGGA ATCTGTTATG GTATGCAGTT	7020
ATTGACCCAT AAAGTTGGAG GAAAAGTTGT TCCTGCAGGT GATGCTGGAA ATCGTGAATA	7080
CGGTCAATCA ACCCTAACTC ACACACCATC AGCGCTTTTT GAATCAACAC CTGATGAACA	7140
GACTGTTTTG ATGAGCCATG GTGATGCGGT TACTGAGATT CCTGCTGACT TTGTTGCTAC	7200
AGGTACATCA GCTGACTGCC CATACGCAGC CATCGAAAAC CCAGATAAAC ACATTTACGG	7260
TATCCAATTC CACCCAGAAG TTCGTCATTC TGTATACGGA AATGATATCC TTCGTAACCT	7320
TGCCCTTAAC ATTTGTAAGG CTAAAGGTGA CTGGTCAATG GATAATTTCA TTGACATGCA	7380
GATCAAAAAA ATTCGTGAAA CCGTCGGTGA TAAACGTGTC CTTCTTGGTC TATCAGGTGG	7440
TGTTGACTCA TCTGTCGTG GGGTTCTTCT CCAAAAAGCG ATTGGCGATC AATTGATCTG	7500
TATCTTCGTA GACCACGGTC TTCTTCGTAA AGGCGAAGCT GATCAAGTTA TGGACATGCT	7560
CGGTGGTAAG TTTGGTTTGA ATATCGTCAA AGCAGACGCT GCTAAACGTT TCCTTGACAA	7620
ACTTGCTGGC GTTTCGACC CTGAACAAAA ACGTAAATC ATCGGTAACG AGTTGTCTA	7680
TGTATTCGAT GACGAAGCAA GCAAGCTCAA AGATGTGAAA TTCCTTGCTC AAGGTACTTT	7740
ATATACAGAT GTTATCGACT CTGGTACGGA TACAGCTCAA ACTATCAAGT CACACCACAA	7800
CGTGGTGGTC TTCCAGAAGA TATGCAGTTT GAATTGATTG AACCACCTAA TACTCTTTAC	7860
AAGGATGAAG TTCGTGCTCT TGGTACAGAG CTTGGTATGC CAGACCATAT CGTATGGCGC	7920
CAACCATTC CAGGACCAGG ACTTGCTATC CGTGTCAATG GTGAAATCAC TGAAGAGAAA	7980
CTTGAAACCG TTCGTGAATC AGACGCTATT CTTCGTGAAG AAATCGCTAA AGCTGGACTT	8040
GACCGCGATA TTTGGCAATA CTTCACTGTT AACACAGCGC TTCGTTCACT CGGTGTTATG	8100
GGTGACGGTC GTACGTATGA CTACACGATT GCAATCCGTG CTATCACTTC TATCGATGGT	8160
ATGACTGCTG ATTTTGCCAA AATTCCATGG GAAGTACTTC AAAAAATCTC AGTACGTATC	8220
GTAAATGAAG TGGATCATGT TAACCGTATC GTCTACGATA TTACAAGTAA ACCACCTGCA	8280
ACAGTTGAGT GGAATAATC GCAAAAAAAT TAAAAGCTTT GTAAATCAA CGGTACAGA	8340
GGATTAAAAA CTGTAACCTG GATTAAAAAG GGAACATTTG CTAAAAAGAA TAAATTGAAT	8400
AATAGTTCCA AGTGGTTTAC ATTTGGACAA AAAATTAGAC CGTAGTTTTC AAGCTGCGGT	8460
CTTTTGATAT ATATAATGAG AATTAATGGC TCTTTGTCAA CTGTAGTGGG TTGAAGTCAG	8520
CTAAGCTCGA GAAAGACAA ATTTTGTCTT TTCTTTTTTG ATATTACAGAG CGATAAAAAA	8580

1037

CCGTTTTTTG AAGTTTTCAA AGTTCCGAAA ACCAAAGGCA TTGCGCTTGA TAAGTTTGAT	8640
GAGATTATTG GTCGCTTCCA ATTTGGCGTT AGAATAGTGT AGTTGAAGGG CGTTGACGAT	8700
TTTCTCTTTG TCCTTTAGAA AGGTTTTAAA GACAGTCTGA AAAAGAGGAT GAACCTGCTT	8760
TAGATTGTCC TCAATGAGTC CGAAAAATTT CTCCGGTTCC TTATTCTGAA AGTGAAACAG	8820
CAAGAGTTGA TAGAGCTGAT AGTGATGTTT CAAGTCTTGT GAATAGCTCA AAAGCTTGTT	8880
TAAAATCTCT TTATTGGTTA AATGCATACG AAAAGTAGGG CGATAAAAAT GTTTATCGCT	8940
GAGTTTACGA CTATCCTGTT GTATGAGCTT CCAGTAGCGC TTGATAGCCT TGTATTTCATG	9000
AGACTTTCGA TCCAATTGAT TCATGATTTG AACACGCACA CGACTCGG	9048

(2) INFORMATION FOR SEQ ID NO: 160:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10399 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 160:

GTACCTTTAT TGATGAATGG ACTGTTTAAA TCAGTAGCAC GCCAACCAGA TATGCTTTCT	60
GAGTTTCGTA GTTTGATGTT TTTAGGTGTT GCCTTTATTG AAGGAACTTT CTTTGTAAC	120
CTTGCTTTCT CATTATTAT CAAATAAATA CATGGAACGA GAAGAAAAGG GAGGATTTTA	180
GATGGAAGAA AGTATTAATC CAATCATCTC TATTGGTCCT GTTATCTTCA ATCTGACTAT	240
GTTAGCCATG ACTTTGTTGA TTGTGGGAGT TATTTTGTG TTTATTTATT GGGCAAGCCG	300
CAATATGACC TTGAAACCCA AAGGAAAGCA AAATGTACTT GAGTATGTCT ATGACTTTGT	360
TATTGGATTT ACAGAACCTA ACATTGGTTC GCGCTACATG AAAGATTACT CACTCTTTT	420
CCTTTGTTTA TTCCTTTTC TGGTGATTGC CAATAACCTT GGCTTAATGA CAAAGCTTCA	480
AACGATCGAT GGGACTAACT GGTGGAGTTC GCCAACCGCT AATTTACAGT ATGACTTAAC	540
CTTATCTTTT CTGTGCATTT TGTGACACA TATAGAAAGC GTTCGTCGTC GTGGATTTAA	600
AAAAAGTATA AAATCTTTA TGAGTCCTGT TTTGTGATA CCGATGAATA TCTTGGAAGA	660
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CATGACGAGT TTGTTACTTC TTCTTTCCCA CCAAGCTATT TATTGGTATC CAGTAGCCTT	780
TGGAGCTAAT TTGGCTTGA CTGCATTTT TGTCTTTATT TCCTGCATCC AAGCTTATGT	840
TTTACTCTT TTGACATCTG TGTATTTAGG GAATAAGATT AATATTGAAG AGGAATAGAA	900

1038

AGGAGTAACT GATGCACGTA ACAGTAGGTG AATTAATTGG TAATTTTATT TTAATCACTG	960
GCTCTTTTAT TCTTTTGCTA GTCTTGATTA AAAAATTTGC ATGGTCTAAT ATTACAGGCA	1020
TTTTCGAAGA AAGAGCTGAA AAAATTGCTT CAGATATTGA CAGAGCTGAA GAAGCCCGTC	1080
AAAAAGCAGA AGTATTGGCT CAAAACGCG AAGATGAATT GGCTGGTAGC CGTAAAGAAG	1140
CTAAGACAAT CATTGAAAAT GCAAAGGAAA CAGCTGAGCA AAGTAAGGCT AATATCTTAG	1200
CAGATGCTAA ACTAGAAGCA GGACACTTAA AAGAAAAAGC CAATCAAGAA ATTGCTCAAA	1260
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CTTGACTCAA ATCAAGCAAG TTGTTGAAAA AACAGGTCTG CCTTCTTTTT TAAAAAAGT	1560
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TTTATTACAA AACTTTATCC AGGTCTGGC CTACAATCAC AGAGCAAAATC TTTTATGA	1680
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AAAAATGTCT CTGAAAGTAA GGAGTGATAA AGAACAAATC GATGAAAGTC TCATTGGTGG	1860
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TCACAACCAT CTCCATTGCT CTTCTAGCT CCTATGCTG GGGTTGCTAT GCGGAAGAA	2700

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1040

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1041

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TAACGAAAC GAGTCAAAG AAAATTCAGA TTTCTTCTAC AAAATCAGGC CGTACTCTTC	4260

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TTACAAAGAA ACATAAGGAA TGGAGACGCA CGGTCCGCT GGACTTTTGG TTAATTTTCT	5520
GGATGATTCT CTTTACCATT CCAGTCCTAG TTCTTTTAGC ACTTCAAAGT GACTTGGGGA	5580
CGGCTTTGGT TTTTGTAGCC ATTTTCTCAG GAATCGTTTT ATTATCAGGG GTTCTTGGA	5640
AAATTATTAT CCCAGTATTT GTGACTGCTG TAACAGGAGT TGCTGGTTTC TTAGCTATCT	5700
TTATTAGCAA GGACGGACGA GCTTTTCTTC ACCAGATTGG AATGCCGACC TACCAAATTA	5760
ATCGGATTTT GGCTTGGCTC AATCCCTTGG AGTTTGCCCA AACAACGACT TACCAGCAGG	5820
CTCAAGGGCA GATTGCCATT GGGAGTGGTG GCTTATTGG TCAGGGATTT AATGCTTCGA	5880
ATCTGCTTAT CCCAGTTCGA GAGTCAGATA TGATTTTAC GGTATTGCA GAAGATTTTG	5940
GCTTTATTGG CTCTGTCTG GTTATTGCCC TCTATCTCAT GTTGATTAC CGTATGTTGA	6000
AGATTACTCT TAAATCAAAT AACCAGTTCT AACTTATAT TTCCACAGGT TTGATTATGA	6060

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TGTTGCTCTT CCACATCTTT GAGAATATCG GTGCTGTGAC TGGACTACTT CCTTTGACGG	6120
GGATTCCCTT GCCTTTCATT TCGCAAGGGG GATCAGCTAT TATCAGTAAT CTGATTGGTG	6180
TTGGTTTGCT TTTATCGATG AGTTACCAGA CTAATCTAGC TGAAGAAAAG AGCGGAAAAG	6240
TCCCATTCOA ACGGAAAAG GTTGATTAA AACAAATTAA ATAAGGAGAA AATCATGGTA	6300
AAAGTAGCAG TTATATTAGC TCAGGGCTTT GAAGAAATTG AAGCCTTGAC AGTTGTAGAT	6360
GTCTTGCGTC GAGCCAATAT CACATGTGAT ATGGTTGGTT TTGAAGAGCA AGTAACGGGT	6420
TCGCATGCAA TCCAAGTAAG AGCAGATCAT GTCTTTGATG GAGATTTATC AGACTATGAT	6480
ATGATTGTTT TTTCTGGAGG TATGCCTGGT TCTGCACATT TACGTGATAA TCAGACCTTG	6540
ATTCAAGAAT TGCAAAGCTT CGAGCAAGAA GGAAGAAAC TAGCAGCCAT TTGTGCGGCA	6600
CCAATTGCCC TCAATCAAGC AGAGATATG AAAAATAAGC GATACACTTG TTATGACGGC	6660
GTTCAAGAGC AAATCCTTGA TGGTCACTAC GTCAAGGAAA CAGTAGTGGT AGATGGTCAG	6720
TTGACAACCA GTCGGGTCC TTCAACAGCC CTTGCCTTTG CCTACGAGTT GGTGGAGCAA	6780
CTAGAGGGGG ACGCAGAGAG TTTACGAACA GGAATGCTCT ATCGAGATGT CTTTGGTAAA	6840
AATCAGTAAA ACGGGAGTTA TTCTCTCGTT TTTTATGTGG AAAACTCAGG GAAATCATCG	6900
CTTTTTTCAT AAAAAATGC TATAATGAAG GGTATGAAAT ATCACGATTA CATCTGGGAT	6960
TTAGGTGGAA CTTTACTGGA TAATTATGAA ACTTCAACAG CTGCATTTGT TGAAACATTG	7020
GCACTGTATG GTATCACACA AGACCATGAC AGTGTCTATC AAGCTTTAAA GGTTTCTACT	7080
CCTTTTGCGA TTGAGACATT CGCTCCCAAT TTAGAGAATT TTTTAGAAAA GTACAAGGAA	7140
AATGAAGCCA GAGAGCTTGA ACACCCGATT TTATTTGAAG GAGTTTCTGA CCTATTGGAA	7200
GACATTTCAA ATCAAGGTGG CCGTCATTTT TTGGTCTCTC ATCGAAATGA TCAGGTTTTG	7260
GAAATTTTAG AAAAAACCTC TATAGCAGCT TATTTTACAG AAGTGGTGAC TTCTAGCTCA	7320
GGCTTTAAGA GAAAGCCAAA TCCCGAATCC ATGCTTTATT TAAGAGAAAA GTATCAGATT	7380
AGCTCTGGTC TTGTCATTGG TGATCGGCCG ATTGATATCG AAGCAGGTCA AGCTGCAGGA	7440
CTTGATACCC ACTTGTTTAC CAGTATCGTG AATTAAAGAC AAGTATTAGA CATATAAGAA	7500
AAAGGAATAA GATGACAGAA GAAATCAAAA ATCTGCAGGC ACAGGATTAT GATGCCAGTC	7560
AAATTCAAGT TTTAGAGGCG TTAGAGGCTG TTCGTATGCG TCCAGGGATG TACATTGGAT	7620
CAACCTCAA AAGAAAGTCTT CACCATCTAG TCTGGGAAAT TGTTGATAAC TCAATTGACG	7680
AGGCCTTGGC AGGATTTGCC AGCCATATTC AAGTTTTTAT TGAGCCAGAT GATTCGATTA	7740
CTGTTGTGGA TGATGGCGT GGTATCCCAG TCGATATTCA GAAAAAACA GGCCGTCCTG	7800

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CTGTTGAGAC CGTCTTTACA GTCCTTCACG CTGGAGGAAA GTTCGGCGGT GGTGGATACA	7860
AGGTTTCAGG TGGTCTTCAC GGGGTGGGGT CGTCAGTAGT TAATGCCCTT TCCACTCAAT	7920
TAGACGTTC A TGTTCACAAA AATGGTAAGA TTCATTACCA AGAATACCGT CGTGGTCATG	7980
TTGTCGCAGA TCTTGAAATA GTTGGAGATA CGGATAAAAC AGGAACAAC GTTCACTTCA	8040
CACCGGACCC AAAAACTTC ACTGAAACAA CAATCTTTGA TTTTGATAAA TTAAATAAAC	8100
GGATTCAAGA GTTGGCCTTT CTAAATCGCG GTCTTCAAAT TTCAATTACA GATAAGCGCC	8160
AAGGTTTGA ACAAACCAAG CATTATCATT ATGAAGGTGG GATTGCTAGT TACGTTGAAT	8220
ATATCAACGA GAACAAGGAT GTAATCTTTG ATACACCAAT CTATACAGAC GGTGAGATGG	8280
ATGATATCAC AGTTGAGGTA GCCATGCAGT ACACAACGG TTACCATGAA AATGTCATGA	8340
GTTCGCGCAA TAATATTCAT ACCCATGAAG GTGGAACACA TGAACAAGGT TTCCGTACAG	8400
CCTTGACAG TGTATCAAC GATTATGCTC GTAAAAATAA GTTACTGAAA GACAATGAAG	8460
ATAATTTAAC AGGGGAAGAT GTTCGCGAAG GCTTAACTGC AGTTATCTCA GTTAAACACC	8520
CAATCCACA GTTTGAAGGA CAAACCAAGA CCAATTTGG AAATAGCGAA GTGGTCAAGA	8580
TTACCAATCG CCTCTTCAGT GAAGCTTTCT CCGATTTCT CATGGAAAAT CCACAGATTG	8640
CCAAACGTAT CGTAGAAAA GGAATTTTGG CTGCCAAGGC TCGTGTGGCT GCCAAGCGTG	8700
CGCGTGAAGT CACACGTAAA AAATCTGGTT TGGAAATTT CAACCTTCCA GGGAACTAG	8760
CAGACTGTTT TTCTAATAAC CTGCTGAAA CAGAACTCTT CATCGTCGAA GGAGACTCAG	8820
CTGGTGGATC AGCCAAATCT GGTGTAACC GTGAGTTTCA GGCTATCCTT CCAATTCGCG	8880
GTAAGATTTT GAACGTTGAA AAAGCAAGTA TGGATAAGAT TCTAGCCAAC GAAGAAATTC	8940
GTAGTCTTTT CACAGCCATG GGAACAGGAT TTGGCGCAGA ATTTGATGTT TCGAAAGCCC	9000
GTTACCAAAA ACTCGTTTGT ATGACCGATG CCGATGTCGA TGGAGCCAC ATTCTGTACCC	9060
TTCTTTTAAC CTTGATTAT CGTTATATGA AACCAATCCT AGAAGCTGGT TATGTTTATA	9120
TTGCCCAACC ACCAATCTAT GGTGTCAAGG TTGGAAGCGA GATTAAAGAA TATATCCAGC	9180
CGGGTGCAGA TCAAGAAATC AAACCTCAAG AAGCTTTAGC CCGTTATAGT GAAGGTCGTA	9240
CCAAACCGAC TATTCAGCGT TATAAGGGG TAGGTGAAAT GGACGATCAT CAGCTGTGGG	9300
AAACAACCAT GGATCCCGAA CATCGCTTGA TGGCTAGAGT TTCTGTAGAT GATGTGCAGA	9360
AGCAGATAAA ATCTTTGATA TGTGATGGG GATCGAGTTG TCCTCGTCG	9409

(2) INFORMATION FOR SEQ ID NO: 162:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6415 base pairs
 - (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 162:

CCTGGGAAAG TCTTGAAAAT TATGATAGAA TGGTGGGAAGG AAAAAATTCAG GAGAGTAGTA	60
GTGACTCAAA ATGTTGAAAG TCTTCTCGTA TCCATTGTAA TCAGTGCATA CAATGAAGAA	120
AAATATCTGC CTGGTCTAAT TGAAGACTTA AAAAAATCAAA CCTATCCTAA AGAGGATATT	180
GAAATTCTAT TTATAAATGC TATGTCCACA GATGGGACCA CAGCTATCAT TCAGCAATTT	240
ATAAAGGAAG ATACAGAGTT TAACTCAATT AGATTGTATA ACAATCCTAA GAAAAATCAA	300
GCTAGTGGTT TTAACCTGGG AGTTAAACAT TCTGTAGGGG ACCTTATTTT AAAAAATGAT	360
GCTCATTCAA AAGTTACTGA GACTTTTGTA ATGAACAATG TGGCTATTAT TCAACAAGGT	420
GAATTTGTCT GTGGGGGGCC TAGACCGACG ATTGTCGAAG GAAAAGGAAA ATGGGCAGAG	480
ACCTTGCAATC TTGTTGAGGA AAATATGTTT GGCAGTAGCA TTGCCAATTA TCGAAATAGT	540
TCTGAGGATA GATATGTTTC TTCTATTTTT CATGGAATGT ATAAACGAGA GGTTTTCCAG	600
AAGGTTGGTT TAGTAAATGA GCAACTTGGC CGAACTGAAG ATAATGATAT TCATTATAGA	660
ATTTCGAGAAT ATGGTTATAA AATCCGCTAT AGCCCAAGTA TTCTATCTTA TCAGTATATT	720
CGACCAACAT TCAAGAAAAT GCTGCATCAA AAGTATTCAA ATGGTTTGTG GATTGGCTTG	780
ACAAGTCATG TTCAGTTTAA GTGTTTATCA TTATTTCACT ATGTTCCCTG TTTATTTGTT	840
TTGAGTCTTG TGTTTAGTCT AGCATTGTTA CCGATCACAT TCGTATTCAT AACTTTACTA	900
TTAGGTGCCT ATTTTCTACT TTTGTCATTA CTCACTTTCG TGACTTTATT AAAACATAAA	960
AATGGATTTC TAATTGTGAT GCCCTTTATT TTATTTTCCA TTCACTTTCG TTATGGCCTT	1020
GGGACGATTG TAGGTTTAAT TAGAGGATTT AAATGGAAGA AGGAGTACAA GAGAACAATA	1080
ATTTATTGTTG ATAAAATAAG CCAAATAAAT CAAAATATGC TATAATAACA ATATAGTAAA	1140
ACTCTTTTAA GGAGGAGTAG ATTTCTATGA ATAAAAAACT AACAGATTAT GTGATTGATC	1200
TGGTGGAAAT TTAAATAAAA CAACAAAAGC AGGTTTCTCG GGAATATTT GATATTTTCA	1260
GTATGGTGGT TTCCATCATT GTATCTTATA TTTTATTTTA TGGGCTGATT AATCCAGCAC	1320
CTGTTGACTA CATTATCTAT ACGAGTTTGG CCTTCCTGTT CTATCAATTG ATGATTGGTT	1380
TTTGGGGGTT GAACGCGAGC ATTAGTCGTT ACAGCAAGAT TACGGATTTC ATGAAAATCT	1440
TTTTTGTTGT GACTGCTAGC AGTGTCTTGT CATATAGTAT CTGTTATGCC TTCTTGCCAC	1500
TCTTCTCCAT CCGTTTCATC ATTCTCTTTA TCTTGTTGAG TACCTTCTTG ATTTTATTGC	1560

1050

CACGGATTAC TTGGCAGTTA ATCTACTCCA GACGCAAAAA AGGTAGTGGT GATGGAGAAC	1620
ACCGTCGGAC CTTCTTGATT GGTGCCGGTG ATGGTGGGGC TCTTTTATG GATAGTTACC	1680
AACATCCAAC CAGTGAATTA GAACTGGTCG GTATTTTGA TAAGGATTCT AAGAAAAAGG	1740
GTCAAAAAC TGGTGGTATT CCTGTTTTGG GCTCTTATGA CAATCTGCCT GAATTAGCCA	1800
AACGCCATCA AATCGAGCGT GTCATCGTTG CGATTCCGTC GCTGGATCCG TCAGAATATG	1860
AGCGTATCTT GCAGATGTGT AATAAGCTGG GTGTCAAATG TTACAAGATG CCTAAGGTTG	1920
AACTGTGT TCAGGGCCTT CACCAAGCAG GTAGTGGCTT CCAAAAAATT GATATTACGG	1980
ACCTTTTGGG TCGTCAGGAA ATCCGTCTTG ACGAATCGCG TCTGGGTGCA GAACTGACAG	2040
GTAAGACCAT CTTAGTCACA GGAGCTGGAG GTTCAATCGG TTCTGAAATC TGTCTGCAAG	2100
TTAGTCGCTT CAATCCTGAA CGCATTTGTCT TGCTCGGTCA TGGGGAAAAC TCAATCTACC	2160
TTGTTTATCA TGAATTGATT CGTAAGTTCC AAGGGATTGA TTATGTACCT GTGATTGCGG	2220
ACATTCAAGA CTATGATCGT TTGTTGCAAG TCTTTGAGCA GTACAAACCT GCTATTGTTT	2280
ATCATGCGGC AGCCACAAG CATGTTCCCTA TGATGGAGCG CAATCCAAA GAAGCCTTCA	2340
AAAACAATAT CCGTGGAAC TACAATGTTG CTAAGGCTGT TGATGAAGCT AAAGTGTCTA	2400
AGATGGTTAT GATTTGACA GATAAGGCAG TCAATCCACC AAATGTTATG GGAGCAACCA	2460
AGCGCGTGGC GGAGTTGATT GTCAGTGGCT TTAACCAACG TAGCCAATCA ACCTACTGTG	2520
CAGTTCGTTT TGGGAATGTT CTTGGTAGCC GTGGTAGTGT CATTCAGTC TTTGAACGTC	2580
AGATTGCTGA AGGTGGGCCT GTAACGGTGA CAGACTTCCG TATGACCCGT TACTTTATGA	2640
CCATTCCAGA AGCTAGCCGT CTGGTTATCC ATGCTGGTGC TTATGCCAAA GATGGGGAAG	2700
TCTTTATCCT TGATATGGGC AAACCAGTCA AGATTTATGA CTTGGCCAAG AAGATGGTGC	2760
TTCTAAGTGG CCACACTGAA AGTGAAATTC CAATCGTTGA AGTTGGAATC CGCCAGGTG	2820
AAAAACTCTA CGAAGAATC TTGGTATCAA CCGAACTCGT TGATAATCAA GTTATGGATA	2880
AGATTTTCGT TGGTAAGGTT AATGTCATGC CTTTAGAATC CATCAATCAA AAGATTGGAG	2940
AGTCCGCAC TCTCAGTGA GATGAGTTGA AGCAAGCTAT TATCGCCTTT GCTAATCAAA	3000
CAACCCACAT TGAATAAAAA AGAAAAACGC ATAGTATCAA GTTACACAAC CTTGGTAATA	3060
TGCGTTTTAT TATGTAGAGA CTTATACTCT TCGAAAATCT CTTCAAACCA CGTCAACGTC	3120
GCCTTGCCGT ATATGGTTAC TGACTtCGTC AGTTCTATCC ACAACCTCAA AACAGTGTTT	3180
TGAGyTGACT TCGTCAGTTC TATCCACAAC CTCAAAACAG TGTTTTGAGc TGACTtCGTC	3240
AGTTCTATCC ACAACCTCAA AACAGTGTTT TGAGCTGAcT TCGTCAGTTC CATCCACAAC	3300
CTTAAACAG TGTTTTGAGy TGACnTTCGT CAGTTCATC TACAACCTTA AACAGTGTT	3360

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TTGAGCTGCC CGCAGCTAGT TTCCTAGTTT GCTCTTTGAT TTTCATTGAG TATTACTTCA	3420
TTTTCTTCTG AAATGGAATT GTTACCCAGT CTATGCTATT GAAAATACGC CAAAACCTCT	3480
AAGGGTTTGT GAGCGATATA ATCAGGTTGA TAGTTTAGTA GATCTGCTTG CTCTCCAAAT	3540
CCCCAAGTGA TGGCCAATTT CTGAATACCT GTTCTCTGAG CTCCCAGCAT ATCAAACCTG	3600
GTATCTCCGA TGATGATGGC TTGTTCTGGT GCTAGTTGAT GTGTCTGCAA GGCTTGGTGA	3660
ATGACATCTG CCTTATGGGG TGCTTCAGGG CTAGAACCAT AAATGCCATC AAAGAAATGA	3720
TGGATTTCCA AGTTTTTTGC CATGCTCTGA GCAGTAGATG TATCCTTTGT CGTGGTGATG	3780
TAGAGTGGAT AACTGCTCGA TAACTCCTCA AGCAAGTCTA TAATCTGAGG AAAGAGTTGA	3840
GCTTCATAGA TGCCTTTTGC CTTATAGTAA GAACGATATA TCTGCACGGC TTCAGAAAT	3900
TGGTCTTTGG ACAGGCAGGT CGCAAACTA CTTTCGAGAG GTGGTCCCAT AAAACCACGA	3960
ATAGTTTTGG CATCAGGGCT AGGCACCCCC AGCTCTTTAA AGGTATAGGT AAAGGCATTG	4020
TGAATCCCGA TAGAACTATC AACGAGGGTT CCATCCAAAT CGAAAAAAT CGCTGTGATA	4080
GAGGTCATGG TTTCTCCTAT TTGATAAGCT TATTCTCCGA AAATTTCTTT TTGGAGGCGA	4140
CGACCAGTAG GGTGGTAGC GAGTCCACCT TCAGCTGTTT CACGAAAGGC AGTTGGCATG	4200
CTTGCTCCTA CTTGGTACAT GGCATCGATC ACTTCATCCA CAGGGATTTT AGATTGATA	4260
CCTGCCAAGG CCATGTCTGC TGCATGAAA GCAAAGCTAG CTCCCATGGC ATTACGTTTG	4320
ACACAGGGAA CTTGCAACAA ACCTGCAACA GGGTCACAGA TGAGGCCTAG CATATTTTAA	4380
ATGACAAAGG CAATAGCTTG ACTGGCCTGA TAAGGTGTTT CACCTGCAGC CAGAGTCAAG	4440
GCGGCAGCAC TCATAGCAGA GGCTGAACCA ACTTCAGCTT GACACCCACC CTCAGCACCT	4500
GAGATGGAGG CATTGTTTGC GATGACTAGT CCAAAGGCAC CAGCAGCAAA GAGGAAATCC	4560
AATTGTTGCT CGTGGCTGAG GTCTAATTTT TCAATAGCAG CAGTGAGAAC GGATGGCAGA	4620
CAGCCAGCAC TTCCAGCGGT TGGAGTGGCA CAGACCAAGC CCATTTTGGC ATTGTGTTCA	4680
TTGACTGCGA TGGCATTTCG GGCAGCCGAG AGAATCGTAT AATCTGACAG AGTTTTTCCG	4740
TTTTCGATGT AGTGATCCAA TTTGGCAGCA TCTCCACCTG TCAGGCCACT ACGAGATTTA	4800
TTTTCATTGA GGCCAAGTTG GACAGAGGCT TTCATAACTT CCAGATTGCG TTCCATGAGA	4860
AGGAAGACTT CTTACAGTTC GCGACCGGTC AATTCAAACT CTGTTGTAAT CATGAGTTCT	4920
GCGACATTTT CTTGAAAGTC CAGATCTGCT TGCTCGACCA ATTCTTTGAT AGAATAAAAC	4980
ATGCTTCCTC CTATTTAAAG AAATGACAT TGTGGAGATG AGGGATTTTT CGAATTTCTT	5040
CGATAGCCCTC ATCAGAGTTG CGACTGTCAA CTTGATAAAT CATAATGGCT TTTTCACCAG	5100

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CTTTTTCACG AGTGACATTC ATCTGGGCGA TATTGATACC ATAGCGGGAA AGCGCCTCTG	5160
TAACAAGGGC AATCATACCT GGAATATCTT GATGAACGAT GATGATAGTC GGTGTATTCA	5220
TATTGAGAGA GACGGCAAAA CCATTGAGTT CGGTTACCTG AATATTTCCT CCACCGATAG	5280
AAATACCAGT CACGCTGATG GTCTTGTTGGG CATTTTAAAC AGTAATTTTA GTGGTGTTAG	5340
GGTGAGGGGC ATTGCTGTCT TTCTGAATGG TCCAGACAAT CTTGATACCA CGCTTGTTGGG	5400
CAATTTCCAG ACTATTGGA ATTTCAGGAT CATCTGTATC CATTCCTAAA ATACCTGCAA	5460
CAAGGGCTAG GTCTGTTCCG TGACCACGAT AGGTCTTGGC AAATGAGTTA AAAAGTTGGA	5520
ATTCAACTTC TGTGCGAGTA TCATCAAAAA TGGAAGAGAC AATCTTCCCA ATACGAACAG	5580
CACCAGCGGT ATGGCTACTA GATGGGCCAA TCATACTGG TCCGATGATA TCAAAGACAG	5640
ATTGAAAACG AAGTGATTTC ATCAGTTTCC CTTATAAAA ATTCTTATCT CTATTATATC	5700
AAAGAATGAG GGGCTTGGCT TTAATTGTGG ATGAAAACCT TTCTAATACC TCAAATAGCA	5760
TAAAAATAGT ATCTTTTATG ACAAAAAACA CTTATTTAG GGAAATAAAA AATAATTTTG	5820
TAATATTTCT ACATAAAAGT GTCAAGAAAC GGTAATATTT AAAGGGTATG ATAGAACTAT	5880
AGAAAGAAGG AGAATTTTCG AATATGAAAT CAATACTAA AAAGATTAAA GCAACTCTTG	5940
CAGGAGTAGC TGCCTTGTTT GCAGTATTTG CTCCATCATT TGTATCTGCT CAAGAATCAT	6000
CAACTTACAC TGTTAAAGAA GGTGATACAC TTTCAGAAAT CGCTGAAACT CACAACACAA	6060
CAGTTGAAAA ATTCCCAGAA AACAACCACA TTGATAACAT TCATTTGATT TATGTTGATC	6120
AAGAGTTGGT TATCGATGGC CCTGTAGCGC CTGTTGCAAC ACCAGCGCCA GCTACTTATG	6180
CGGCACCAGC CGCTCAAGAT GAACTGTTT CAGCTCCAGT AGCAGAAACT CCAGTAGTAA	6240
GTGAAACAGT TGTTTCAACT GTAAGCGGAT CTGAAGCAGA AGCCAAAGAA TGGATCGCTC	6300
AAAAAGAATC AGGTGGTAGT ATACAGCTAC AAATGGACGT TATATCGGAC GTTACCAATT	6360
AACAGATTCA TACCTGAACG GTGACTACTC AGCTGAAAAC CAAGAACGGG TACCG	6415

(2) INFORMATION FOR SEQ ID NO: 163:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8494 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 163:

TACCCCTTTC GAATTTTGGC AAAAATTCGG TAAGGCTTTG ATGGTAGTTA TCGCGGTTAT	60
GCCGGCTGCT GGTGTTGATGA TTTCAATCGG TAAGTCTATC GTGATGATTA ACCCAACCTT	120

1053

TGCACCACTT GTCATCACAG GTGGAATTCT TGAGCAAATC GGTGGGGGG TTATCGGTAA	180
CCTTCACATT TTGTTGCCC TAGCCATTGG AGGAAGCTGG GCTAAAGAAC GTGCTGGTGG	240
TGCTTTCGCC GCTGGTCTTG CCTTCATCTT GATTAACCGT ATCACTGGTA CAATCTTTGG	300
TGTATCAGGC GATATGTTGA AAAATCCAGA TGCTATGGTA ACTACTTTCT TTGGTGGTTC	360
AATCAAAGTT GCTGATTACT TTATCAGTGT TCTTGAAGCT CCAGCCTTGA ACATGGGGGT	420
ATTTCGTAGG ATTATCTCAG GTTTTGTAGG GGCAACTGCT TACAACAAAT ACTACAATT	480
CCGTAAACTT CCTGATGCAC TTTCATTCTT CAACGGGAAA CGTTTCGTAC CATTTGTAGT	540
TATCTTCGT TCAGCAATCG CTGCAATTCT ACTTGCTGCT TTCTGGCCAG TAGTTCAAAC	600
AGGTATCAAT AACTTCGGTA TCTGGATTGC CAACTCACAA GAAACTGCTC CAATTCTTGC	660
ACCATTCTTG TATGGTACTT TGGAACTTT GCTCTTGCCA TTTGGTCTTC ACCACATGTT	720
GACTATCCCA ATGAACTACA CAGCTCTTGG TGGTACTTAT GACATTTTAA CTGGTGCAGC	780
TAAAGGTA CTCAAGATCG GTCAAGACCC ACTATGGCTT GCATGGGTAA CAGACCTTGT	840
AAACCTTAAA GGTACTGATG CTAGTCAATA TCAACACTTG TTAGATACAG TACATCCAGC	900
TCGTTTCAA GTTGACAAA TGATCGGTTC ATTCGGTATC TTGATGGGTG TGATTGTTGC	960
TATCTACCGT AATGTTGATG CTGACAAGAA ACATAAATAC AAAGGTATGA TGATTGCAAC	1020
AGCTCTTGCA ACATTCTTGA CAGGGGTTAC TGAACCAATC GAATACATGT TCATGTTCA	1080
CGCAACACCT ATGTATCTTG TTTACTCACT TGTTCAAGGT GCTGCCTTCG CTATGGCTGA	1140
CGTCGTAAAC CTACGTATGC ACTCATTGCG TTCAATCGAG TTCTTGACTC GTACACCTAT	1200
TGCAATCAGT GCTGGTATTG GTATGGATAT CGTTAACTTC GTTTGGGTAA CTGTTCTCTT	1260
TGCTGTAATC ATGTACTTTA TCGCAAACCT CATGATTCAA AAATTCAACT ACGCAACTCC	1320
AGGGCGCAAC GAAACTACG AACTGCTGA AGGTTGAGAA GAAACCAGCA GCGAAGTGAA	1380
AGTTGCAGCA GGCTCTCAAG CTGTAAACAT TATCAACCTT CTTGGTGGAC GTGTAAACAT	1440
CGTTGATGTT GATGCATGTA TGAATCGTCT TCGTGTAATC GTTAAAGATG CAGATAAAGT	1500
AGGAAATGCA GAGCAATGGA AAGCAGAAGG AGCTATGGGT CTGTCATGA AAGGACAAGG	1560
GGTTCAAGCT ATCTACGGTC CAAAAGCTGA CATTTTGAAA TCTGATATCC AAGATATCCT	1620
TGATTCAAGT GAAATCATTC CTGAAACTCT TCCAAGCCAA ATGACTGAAG CACAACAAAA	1680
CACTGTTCAc TTCAAAGATC TTAAGGAGGA AGTTTACTCA GTAGCAGACG GTCAAGTTGT	1740
TGCTTTGGAA CAAGTAAAGG ATCCAGTATT TGCTCAAAAA ATGATGGGTG ATGGATTGTC	1800
AGTAGAACCT GCAAAATGGA ACATTGTATC TCCAGTTTCA GGTACTGTGT CAAGCATCTT	1860

1054

CCCAACAAAA CATGCTTTTG GTATTGTGAC GGAAGCAGGT CTTGAAGTAT TGGTTCACAT	1920
TGGTTTGGAC ACAGTAAGTC TTGAAGGTAA ACCATTTACA GTTCATGTTG CTGAAGGACA	1980
AAAAGTTGCA GCAGGAGATC TCCTTGTCAC AGCTGACTTG GATGCTATCC GTGCAGCAGG	2040
ACGTGAAACT TCAACAGTAG TTGCTTTCAC AAATGGTGAT GCAATTAAAT CAGTTAAGTT	2100
AGAAAAACA GGTTCCTCTG CAGCTAAAC AGCAGTTGCT AAAGTAGAAT TGTAAATATAC	2160
TTGAGGTTGG AAGCTGTATT CCAACCTCTT ATTTTGGGAG AAAAGAATGA AATTTTAAAC	2220
ACTCAATACT CACAGTTGGA TGGAGAAAGA AGCAGAGGAA AAATCCAGA TTTTGCTTGA	2280
AGATATTCTT GAAAAGGACT ATGATTTGAT TTGTTTCAA GAAATCAATC AGGAGATGAC	2340
CTCGTCAGAG GTGGAGGTTA ATGACCTTTA TCAAGCTTTG CCAGCAGCTG AGCCTATTCA	2400
CCAAGACCAT TATGTTAGAC TCTTGGTTGA AAAGTTGTCT GAGCAAGGGA AAAATTAATA	2460
CTGGACCTGG GCCTATAACC ATATCGGCTA TAACCGCTAC CACGAAGGTG TGGCTATCTT	2520
GTCTAAACA CCTATTGAAG CCAGAGAAAT TTTGGTTTCA GATGTGGATG ATCCAACAGA	2580
CTATCATACT CGCCGTGTTG CCCTAGCTGA AACTGTAGTC GATGGCAAGG AGCTAGCAGT	2640
TGCCAGTGTT CATCTCTCTT GGTGGGATAA AGGTTTCCAA GAAGAATGGG CACGATTGTA	2700
GGCTGTCTTG AAAAAATTGA ACAAGCCACT TTTACTAGCT GGAGATTTCA ACAATCCGGC	2760
TGGACAGGAA GGTACCAAG CTATTTTAGC TAGTCCATTA GGCTTACAAG ACGCATTTGA	2820
AGTTGCTCAA GAGAAAAGTG GTAGCTATAC TGTCCGCCT GAAATTGATG GCTGGAAAGG	2880
GAACACTGAA CCCCTTCGAA TCGATTATGT CTTTACTACC AAAGAGTTAG CGGTGGAAAA	2940
TTTACATGTC GTATTTGATG GTAACAAGAG TCCACAAGTG AGTGATCACT ATGGCTTGAA	3000
TGCTATATTA AACTGGAAAT AATAACTGAA AAGAGGTTGG AACTATAAAA TTCCAGCCTT	3060
TTCTTACTAG AGAAGCTACT GGAAATAGCC TAAATAAGTG AGACTACTGT AATGGAATAA	3120
AATATGGTAT AATTGATAAG GTAGATAGAA TCGAGGATGT TATGTCATTT ACGAAATTC	3180
AATTTAAAAA CTATATTAGA GAAGCCTTGA AGGAGTTAAA ATTTACAACT CCAACAGAGG	3240
TGCAAGACAA GTTGATTCTT ATTGTTTTGG CAGGTCGTGA CCTAGTAGGA GAATCAAAAA	3300
CAGGTTCAGG TAAGACTCAT ACTTCTTGT TACCGATTTT CCAGCAATTA GATGAAGCTA	3360
GCGATAGTGT ACAAGCAGTG ATTACTGCAC CGAGTCGTGA GTTGGCTACT CAAATTTACC	3420
AAGTAGCGCG TCAGATTTCA GCTCACTCAG ATGTCGAAGT TCGTGTGGTT AATTATGTGG	3480
GTGGTACGGA TAAGGCTCGC CAGATTGAGA AATTGGCAAG CAATCAGCCT CATATTGTTA	3540
TTGGAACACC AGGCCGTATC TACGACTTGG TTAAATCTGG TGATTTAGCT ATTCATAAAG	3600
CCAAGACATT TGTGTTGAT GAAGCAGATA TGACCTTGA TATGGGATTC TTGGAAACTG	3660

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TTGATAAGAT TGCTGGCAGT CTTCACAAAG ACTTGCAATT CATGGTCTTC TCAGCGACTA	3720
TCCCACAAAA ACTGCAACCA TTCTTGAAAA AATACTTATC AAATCCTGTT ATGGAGAAAA	3780
TTAAGACCAA AACGGTTATT TCTGACACCA TTGATAATTG GTTGATTTTCG ACCAAGGGAC	3840
ATGATAAGAA TGCTCAAAAT TACCAGTTGA CTCAGTTGAT GCAGCCGTAT TTGGCAATGA	3900
TTTTTGTTAA CACTAAAACG CGTGCTGATG AATTGCATTC ATATCTGACT GCTCAAGGCT	3960
TGAAGGTTGC AAAAAATCCAT GGCGATATTG CQCCTCGTGA ACGCAAGCGA ATCATGAATC	4020
AGGTGCAAAA TCTGGATTTT GAGTATATTG TCGCAACAGA TTTGGCAGCG CGTGGGATTG	4080
ACATTGAAGG TGTGAGCCAT GTCATCAATG ATGCCATTCC GCAAGACTTA TCTTTTTTTG	4140
TTTCATCGTGT TGGTCGTA CTGACGAAATG GCCTACCAGG TACAGCTATT ACCCTTTATC	4200
AGCCAAGTGA TGACTCGGAT ATCCGTGAGT TGGAGAAATT GGAATCAAG TTTAGTCTTA	4260
AGATGGTCAA AGACGGGGAA TTTCAAGATA CCTATGACCG TGATCGTCGT GCCAACCGTG	4320
AGAAAAAACA AGATAAACTT GATATCGAAA TGATTGGTTT GGTTAAAAAG AAAAAGAAAA	4380
AAGTCAAACC GGGTTATAAG AAGAAAATTC AATGGGCGGT TGATGAAAAG CGCCGTAAAA	4440
CCAAGCGTGC TGAATATCGC GCTCGCGGTC GTGCAGAGCG TAAAGCTAAA CGCCAAACAT	4500
TTTAATAGAA ATGTGTGGAG TATTGAGCTC CAACTTTTTT ATTTATGAGA ACGAATATC	4560
TAAACCGAAA CACTACATTA AAGACTGCAA ATTGCGATTA AAATTCGTAT AATGATAAAG	4620
TTATATAGTC CCGATAAGAT GGTAGGTATT TATTACGAAG AGTTTTCCTA TCAGTACTTT	4680
GTAACCTCTAT AACAATATTT TTTAAGGGGG GACATTTTTA TGTCAGAGCG TAAATTATTC	4740
ACGTCTGAAT CTGTATCTGA GGGGCATCCG GATAAGATTG CAGACCAAAT TTCAGATGCG	4800
ATTTTGATG CTATTTTAGC AAAGGATCCA GAGGCGCACG TTGCTGCTGA AACAGCTGTA	4860
TATACTGGTT CTGTCCACGT TTTTGGTGAA ATTTCTACAA ATGCCTATGT GGATATTAAC	4920
CGTGTGGTTC GTGATACCAT TGCAGAGATT GGTATACCA ATACAGAATA TGGATTTTCT	4980
GCTGAGACGG TGGGAGTACA CCCATCTTTG GTGGAACAAT CTCCTGACAT CGCTCAAGGT	5040
GTAAACGAAG CTTGGAGGT TCGTGGAAAT GCTGATCAAG ATCCACTGGA CTTGATTGGA	5100
GCAGGTGACC AAGGGCTCAT GTTTGGATTT GCAGTAGATG AAACAGAAGA GCTTATGCCA	5160
TTGCCAATTG CACTCAGTCA TAAATTGGTT CGTCGTCTGG CAGAACTTCG TAAGTCTGGA	5220
GAAATTAGCT ATCTCCGTCC AGATGCAAAA TCACAAGTTA CAGTTGAGTA CGATGAAAAT	5280
GACCGTCCGG TACGTGTAGA TACAGTCGTT ATTTCTACTC AGCATGATCC AGAGGCCACT	5340
AATGAACAAA TCCATCAAGA TGTGATTGAC AAGGTCATCA AAGAAGTTAT TCCATCTTCT	5400

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TATCTTGATG ATAAGACAAA ATTCTTTATC AATCCGACAG GTCGTTTTGT AATCGGTGGT	5460
CCTCAAGGGG ACTCAGGTTT GACTGGTCGT AAGATTATTG TAGATACTTA TGGTGGCTAC	5520
TCTCGTCATG GTGGTGGTGC CTTCTCTGGT AAAGATGCGA CTAAGGTGGA TCGTTCAGCC	5580
TCTTATGCGG CTCGCTATAT TGCCAAGAAT ATCGTTGCAG CAGACCTTGC TAAGAAGGCA	5640
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CTTCGCCCTG CAGGATTAT CCAAATGCTG GACCTCAAGC GTCCAATTTA CCGTCAAACA	5820
TCGGCTTACG GTCACATGGG ACGTACAGAT ATTGATCTTC CATGGGAACG TTTGGATAAG	5880
GTAGATGCTT TGAAAGAAGC AGTAAAATAA GATTTTAAGA GGGGAACGTC CTCTCTTTTT	5940
TATAGTTTTT AACTATACTG GGATACTGTT CTGAAAATCC ATTTTGCGAA AGTAGAGATT	6000
TACATGTATA GTAGATTGAA ACTAGAATAG TACACCTCAA CTTCTAAAAC ATTGTTAGCA	6060
ATCAATTGTA CTGTCCTGAT CGATTTCTCC TGTTCCTGTT TCATTTTACT ATATTTCTTT	6120
AAAAATGATA AAGGTTAAGA TTTCTCCTCG TAATAGATAA TCTTGGGGAT ATTTCAATCC	6180
AAAGTTTTAT TCGTTATCAC TTGACTATTG CAAGGTTTTC TAGAGCAACA GAGTCATGGA	6240
ATGGACTCAT GGTGAGATT TCTCCTTGT GCTTGGACTT CATTCAAAAG TCTGTTACCC	6300
AAGCCTTGT CAAACTTCTA ATACACTAGC TGTTCCTATA GCATGACTTC TGTACTAGAC	6360
TTTCTTTTCC GAATAAATAG ATAGAACCAC AGAATCTAGT AAACCTAGAA TTAATAATAT	6420
GGTATAATAT TAGCAATAAA AGAAATCTGG AGGATTAGAA TCATGGTATC AACGAAAACA	6480
CAAAATGCTG GTTTTGAGTT TGACAATTGC TTGATGAATG CAGCAGGTGT GGCTTGTATG	6540
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GCGACCTTGG ACTTCCGTCA GGGGAATCCT GAGCCACGCT ACCAAGATGT TCCACTTGGT	6660
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GATTTCAGG AAAAAGAGTC GAACCGAACT TTCTTCTTAT CTCTGGTCGG CATGTCTCCA	6780
GAGGAAACCC ATACTATTTT GAAAAAAGTC CAAGAGAGTG ATTTTCGTGG TCTGACTGAG	6840
CTAAATCTTT CCTGTCCAAA TGTTCAGGT AAACCTCAGA TTGCCTATGA TTTTGAGACA	6900
ACAGACCGGA TTTTGSCAGA AGTGTTTGCT TACTTCACCA AACCTCTTGG AATTAAATTG	6960
CCACCTTAT TTGATATTGT TCACTTTGAC CAAGCGGCAG CTATTTTCAA CAAATATCCG	7020
CTCAAGTTTG TCAACTGCGT TAACTCTATC GGAAACGGCC TCTATATAGA AGACGAATCT	7080
GTCGTTATTC GGCCTAAGAA TGGTTTGGT GGAATTGGTG GAGAATACAT CAAACCGACT	7140
GCTTTAGCCA ATGTTACGCG CTTTATCAA CGTTTAAATC CTCAAATCCA AATTATCGGA	7200

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ACAGGTGGCG TTCTGACTGG TCGAGATGCC TTTGAACACA TCCTCTGTGG AGCAAGTATG	7260
GTGCAGGTGG GAACGACCCT TCACAAAGAA GCGGTCAGTG CTTTGTACCG CATTACCAAT	7320
GAAGTGAAG CAATCATGGT GAAAAAGGC TACGAGAGCT TAGAAGATTT CCGTGGGAAA	7380
TTGCGCTATA TTGACTAAAT TAAATCGAAA AATCTGAAGA AAGGAGAGAC GATGCTAGCC	7440
ATTGAAGAAA GTCAGAAGTT GACTTTATCA AATTTACCGA GCCTGAGCCT ATTACAGGG	7500
ACAGATCAGG GTCAGTTTGA AGTGATGAAG AGTCAAATGT TGAAACAGAT TGGGTATGAT	7560
TCTGCTGACC TCAACTTTGC CTACTTTGAT ATGAAAGAAG TAGTTTACAA GGATGTGGAA	7620
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GATAGCAAAA GACGGTTAGT CAAATTACTT AAGCGTGATG CCAAGGCCTT CGATGCAGTA	7860
GAAGTAAAG AACAAGAATT GCGCCAGTAC TTCCAAAAGT GGAGTCAGAA ACAAGGTCTG	7920
CAGTTTACCA ATCATTCTTT TGAAAATCTC CTCATCAAGT CGGGGTTTCA ATTTAGCGAA	7980
ATCCAGAAAA ATCTTCTCTT TTTACAGTCC TATAAGGCGA ATTCTGTTAT TGAGGAAGAG	8040
GATATTGTTA ACGCAATTCC CAAGACTTGC AGGACAATAT TTTTGATTTA ACTCAGTTTA	8100
TTCTGACTAA AAAGATGGAT CAGGCGCGCG ATTTGGTGAG AGACTTGACC TTGCAAGGGG	8160
AAGATGAAAT CAAACTGATT GCAGTCATGC TGGGACAATT TCGGACTTTT ACTCAGGTGA	8220
AGATTTTGGC GGAGTCTGGC CAAACAGAAT CGCAGATTGC AAGTAGTTTA GGTAGTTATC	8280
TGGGACGTAA CCCAAATCCT TATCAAATCA AGTTTGCAAT AAGAGATTCG AGAGGACTTT	8340
CTTTGAGCTT TTTGAAGCAA GCTATTTCTT ATTTGATTGA GACAGACTAT CAGATTAAAG	8400
CAGGTCTTTA TGAAAAGGT TTCCTTTTGG AAAAGGCACT CTTACAGATT GCTAGTCAGG	8460
TCAATTGACA TTTGTTGAAA CTACTAACCC GCGG	8494

(2) INFORMATION FOR SEQ ID NO: 164:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9707 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 164:

CCGGTCAGTT CGTTCAGTAC AAGGAATCAT AATGAACGAT CAATCAGAAA AAAAGACTAG	60
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1058

AAAGAAGACT GTATGGATAA TCGACCAATT GGTTTTTTGG ATTCGGGTGT CGGGGGCTTG	120
ACCGTTGTGC GCGAGCTCAT GCGCCAGCTT CCCCATGAAG AAATCGTCTA TATTGGAGAT	180
TCGGCGCGGG CGCCCTATGG CCCCCGTCTT GCTGAGCAAA TTCGTGAATA TACTTGGCAG	240
CTGGTCAACT TTCTCTTGAC CAAGGATGTC AAAATGATTG TCATTGCTTG TAACACTGCG	300
ACTGCGGTCTG TCTGGGAAGA AATCAAGGCT CAACTAGATA TTCTGTCTT GGGTGTAAAT	360
TTGCCAGGAG CTTCCGCAGC CATCAAGTCC AGTCAAGGTG GGAAAATCGG AGTGATTGGA	420
ACGCCCATGA CGGTACAATC AGACATATAC CGTCAGAAAA TCCATGATCT GGATCCCGAC	480
TTACAGGTGG AGAGCTTGCC CTGTCCCAAG TTTGCTCCCT TGGTTGAGTC AGGTGCCCTG	540
TCAACCAAGT TTACCAAGAA GGTGGTCTAT GAAACCCCTGC GTCCCTTGGT TGGAAAGGTG	600
GATAGCCTGA TTTTGGGCTG TACTCATTAT CCACTCCTTC GCCCTATTAT CCAAAATGTG	660
ATGGGGCCAA AGGTTCAAGT CATCGATAGT GGGGCAGAGT GCGTACGGGA TATCTCAGTC	720
TTACTCAATT ATTTTGAAAT CAATCGTGGT CGCGATGCTG GACCACTCCA TCACCGTTTT	780
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ATTCATGTGG AGCATGTAGA ATTATGACAA ATAAAATTTA TGAATATAAG GATGACCAGG	900
ACTGGTATGT TGGGTCTTAT AGTATTTTTG GTGGCGTTAA CAGTTTGAGC GACTATAAGA	960
CAGATTTTCC TCTGTTTGAA TTCTCCAAAA TATTTGGAGA TGAAGAGTAT GGTTTCCCGC	1020
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TGGTTGAAAA TGGGCAACTC TTGTATGTAG AATTGCCTAA AGAAGGGGTC AATGTTTCATG	1200
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AAACCAAGGA ATTCCGAGCT ATCTTTGATA AGTTAGGCTA CGATGTGGAA AATCTTAATG	1320
ACTACCCTGA CCTGCCTGAA GTAGCAGAAA CAGGTATGAC CTTTGAAGAA AATGCCCGCC	1380
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TCAAAGTCGA TGTCTTGGT GGCTTACCAG GCGTCTGGTC AGCTCGTTTC GCAGGTGTGG	1500
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TCAAGGACCG CTCGGCTCAG TTCCACACAA CCCTAGTCGT AGCCAGCCCA AATAAGGAAA	1620
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GCTTTGGCTA TGATCCCTC TTCTTGTAG GAGAAAACAGG TGAGTCATCA GCTGAATTAA	1740
CCCTGGAAGA AAAAAATAGT CAATCTCACC GTGCCTTAGC CGTTAAGAAA CTTTGGAGG	1800
TATTTCCATC ATGGCAAAGC AAACCATCAT TGTAATGAGC GATTCCCATG GCGATAGCTT	1860

1059

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CGATTCTGAA CTACGTCCGG ATTCTCCACT TTGGGAGGGC ATCCGCGTTG TTAAAGGGAA	1980
CATGGACTTC TACGCCGGCT ACCCAGAACG TCTGGTGACT GAGCTTGGTT CGACCAAGAT	2040
TATCCAAACT CATGGTCACT TGTTTGACAT CAATTTC AAC TTCAAAAGT TGGACTACTG	2100
GGCTCAGGAG GAAGAGGCCG CTATCTGCCT CTATGGTCAC TTGCATGTGC CAAGTGCTTG	2160
GTTGGAAGGC AAGATCCTCT TTCTAAATCC AGGTTCTATC AGTCAACCAC GAGGTACCAT	2220
CAGAGAATGT CTCTATGCTC GTGTGGAGAT TGATGATAGT TACTTCAAAG TGGACTTTTT	2280
GACACGAGAT CACGAGGTGT ATCCAGGTTT GTCCAAGGAG TTTAGCCGAT GATTGCCAAG	2340
GAGTTTGAGA CTTTCTTGTT GGGGCAGGAG GAAACTTTTT TGACCCCTGC TAAAAATCTA	2400
GCTGTGTTGA TTGATACCCA CAATGCGGAT CATGCGACCC TCTTGCTCAG TCAGATGACC	2460
TATACCCGTG TTCCCGTTGT GACAGATGAA AAACAGTTTG TTGGGACGAT TGGACTCAGA	2520
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CCCAACAGAG GATTGTCACC ATTCCACGG CCTTGCTTTC AGAATTGGAA CCCTTGATGG	3300
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AGTTAGAATC TTTTGTCAAG GAGAAAGGTT TTCCATCCTT ATCAGCTCAA GTCTTACGTG	3420
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TAGGATTAAA AACAGTCTG ACCTTAGAAA AATATAGATA ATGGATATTA AATTAAAAGA	3540
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1060

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CATGCGTCTG GAAGTGACGG GTGAGTACAT GGTGATGGCT AGTCAGCTCA TGCTGATTAA	3720
GAGTCGTAAA CTCCTTCCGA AGGTAGCAGA AGTGACAGAC TTGGGGGATG ACCTGGAGCA	3780
GGACCTCCTC TCTCAATCG AAGAATATCG CAAGTTCAAG CTCTTGGGTG AGCACTTGGA	3840
AGCCAAGCAC CAAGAACGGG CCCAGTATTA TTCCAAAGCG CCGACAGAGT TGATTTACGA	3900
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CCTAGCCAAG AAAAAAGAGG AGTTTGCACA AAATCACACG ACGATCTTGC GGGATGAGTA	4020
TAAGATTGAG GACATGATGA TTATCGTGAA AGAGTCCTTG ATTGACGAG ATCAATTGCG	4080
CTTGCAGGAT TTGTTCAAGG AAGCCCAGAA TGTCCAAGAG GTCATCACCC TCTTTTGGC	4140
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TATCTATCTC ATGGAAGA AGGAAGAAAG TCAAGTGCCT CAAAGCTAGA CTGTAGTAGAG	4260
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CGCGTGTTAA AGGTGTGGCC AATAAGGACA ATCTCCGCCC CTTGACCCGT GGTCTTGAGA	5280
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ATCGCTCTGT GGTGCAGTTG ACCATCCATG AAGGGCGTAA CCATCAGGTT AAAAAGATGT	5400

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ACACCATGGC TGTAAC TAAG AAATAATGAA ACGAATTTTA ATAGCGCCTG TCGCCTTTTA	5580
CCAACGTTTT ATCTCACCAG TCTTTCCACC CTCTGTCGC TTTGAGCTGA CTGTTCCTAA	5640
CTACATGATT CAGGCTATTG AAAACATGG GTTTAAGGGG GTATTGATGG GCTTGGCTCG	5700
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AAGTCCGCCT CCGCTTAGAT ACCAGAGGTC TGGTGTTAGT TGGATAATCT TACCATTTTT	6120
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TCTTTTAAGT TGGTCAGTTC TAAATAGTTC AGAGTTTCTC GGATTTTTTC CCAGTCTTCT	7500
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CTACCGATGA TTCCTAGCAA GAGACTGACA GACAACTCAT AGGGCCTAAT CAGAACTCGG	8880
GATAGGATAT CGCAAGCCAG AACTAGATTG GCACCAACCA GTGCGACCAT GAGTTTGGTT	8940

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TGACTTAGAT TATCTCCATA GCGCTTGCGA ACAAGATTGG GAACGATAAC TCCGAGAAAT	9000
GGTAGGCCAC CCACGGTAAT CATGGTGACG CTTGTCGTTA GCGCCACCAG AAAGAGGGCC	9060
AGTTTTTCAA GTAGGGAGTA GGAAATCCCC AAACCTCTCGC TGGTTTCTTT CCCTAGATTC	9120
ATGATGGTGA AGGTTTGGGA TAATTTCCAA ACGGTTATCA GGATGATGAG GCCTAAGAAG	9180
AGCCACTCAT ACTGATGGGT CTGAATCATG GAGAAGGAGC CCTGGGTCCA GGCAGTCATA	9240
CTCTGAACCA GATTGAAACG ATAGGCGATA ACTTCTGTGA CTGAGCCGAT AATCCCGCTA	9300
TAGATGATCC CAATCAGAGG CAACATCCAC CTTTCCTTTA CAGTAAAAAT GGTCAATAAG	9360
GCTAGGAAGA AGAGGGTGAA TACGATGGAT GAAACAAAAG CGAAGAGCAT CTTGTGGGTC	9420
AGACTAGCCG ATGGAAAGAC AAAAAGGCTC AGCACCATTTC CCAGTTTGGC GGCTTCAGTC	9480
GTTCCAACGT TACTCGGTGC AGCAAACGTA TTTTGGGTAA TAGTCTGCAT GAGAAGGCCT	9540
GCCATACTCA TACTAGAGGC AGTCAGGAGA ATACTGATAG TTCTTGGGAG ACGGGACTCT	9600
TGAAAGAGGA GCCAGGTCTG CTGGTCGAAA TCAAATAGCT TTCCCCATGA AAAATCACTG	9660
GTCCCAATGC TAATAGAGAG AAAGACTAGG AGTAGAAGTA AGCCAGG	9707

(2) INFORMATION FOR SEQ ID NO: 165:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5910 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 165:

CCGCAATTAT GCTTGAAAAG GAGTATACTT ATAAGTAACG CAAACGTTTG CGTCTGAAAA	60
ATACGCAACG TTCCATTATT TTAACACACG AGGTGCTATT ATGAAAAAAC GTCAAAGTGG	120
TGTGTTGATG CACATCTCTT CTCTTCCAGG AGCTTACGGA ATCGGATCAT TTGGTCAAAG	180
TGCTTACGAC TTCGTTGATT TCTTGGTCCG TACAAAACAA CGTTACTGGC AAATCCTTCC	240
ATTAGGAGCA ACTAGTTACG GGGATTCTCC TTACCAATCT TTCTCAGCCT TCGCAGGAAA	300
CACTCATTTT ATCGATTTAG ATATCTTGGT GGAGCAAGGT TTGTTGGAAG CAAGTGACCT	360
TGAAGGAGTT GACTTTGGTA GCGATGCGTC TGAAGTTGAC TATGCTAAAA TCTACTATGC	420
ACGTCGTCCT CTTTATAGAA AAGCGGTGAA ACGTTTCTTT GAAGTCGGAG ATGTTAAAGA	480
TTTTGAGAAA TTTGCTCAAG ACAACCAATC ATGGCTTGAG CTCTTTGCTG AGTATATGGC	540
TATCAAAGAG TATTTTGACA ATCTTGCTTG GACTGAATGG CCAGATGCAG ATGCTCGTGC	600

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TCGTAAAGCT TCAGCACTTG AAAGCTATCG TGAGCAATTG GCAGACAAGT TGGTTTACCA	660
CCGTGTGACT CAATACTTCT TCTTCCAACA ATGGTTGAAA TTGAAAGCTT ACGCTAACGA	720
CAACCACATC GAAATCGTTG GGGACATGCC AATCTACGTA GCGGAAGATT CAAGTGATAT	780
GTGGGCAAAT CCACATCTCT TCAAAACAGA TGTCATGGT AAGGCTACTT GTATCGCAGG	840
ATGCCCACCA GATGAGTTT CTGTAAGTGG TCAGCTTTGG GGTAATCCAA TCTATGACTG	900
GGAAGCAATG GACAAAGACG GCTACAAATG GTGGATTGAA CGCTTGCGTG AAAGCTTCAA	960
AATCTACGAT ATCGTTCGTA TCGACCACTT CCGTGGCTTC GAATCTTACT GGGAAATCCC	1020
TGCTGGTTCC GATACAGCAG CACCTGGTGA GTGGGTGAAA GGTCCAGGTT ACAAGCTTTT	1080
TGCAGCCGTT AAGGAAGAAC TTGGTGAGCT AAACATCATC GCAGAAGACC TTGGCTTCAT	1140
GACAGATGAA GTGATCGAAT TCGGTGAACG TACTGGCTTC CCAGGAATGA AGATTCTTCA	1200
ATTTGCCTTC AACCAGAAAG ACGAAAGCAT TGATAGCCCA CACTTGGCAC CTGCTAACTC	1260
AGTTATGTAC ACAGGAACAC ACGATAACAA TACGGTTCTT GGTGGTACC GTAATGAGAT	1320
TGATGATGCG ACTCGTGAGT ACATGGCTCG TTACACGAAC CGTAAAGAAT ACGAAACAGT	1380
GGTACACGCT ATGCTTCGTA CAGTATTTTC ATCAGTTAGC TTTATGGCAA TTGCAACTAT	1440
GCAAGATTTA CTAGAATTGG ATGAGGCAGC TCGTATGAAC TTCCCATCTA CCCTTGGTGG	1500
AAACTGGTCT TGGCGTATGA CTGAAGATCA ATTGACACCA GCTGTCGAGG AAGGTTTGCT	1560
TGACTTGACA ACAATTTATC GCCGAATTAA TGAAAATTTG GTAGATTTAA AGAAATAAGA	1620
CAATAATCAG GAGACAATA AACATGTTAT CACTACAAGA ATTTGTACAA AATCGTTACA	1680
ATAAAACCAT TGCAGAAATG AGCAATGAAG AGCTTTACCT TGCTCTTCTT AACTACAGCA	1740
AGCTTGCAAG CAGCCAAAAA CAGTCAACA, CTGGTAAGAA AAAAGTTTAC TACATCTCAG	1800
CTGAGTTCTT GATTGGTAAA CTCTGTCAA ACAACTTGAT TAACCTTGGT CTTTACGACG	1860
ATGTTAAAAA AGAACTTGCA GCTGCAGTA AAGACTTGAT CGAAGTTGAA GAAGTTGAAT	1920
TGGAACCATC TCTTGGTAAT GGTGGTTTGG GACGTTTGGC TGCCTGCTTT ATCGACTCAA	1980
TTGCTACTCT TGGTTTGAAT GGTGACGGTG TTGGTCTTAA CTACCACTTT GGTCTTTTCC	2040
AACAAGTTCT TAAAAACAAC CAACAAGAAA CAATTCCAAA TGCATGGTTG ACAGAGCAAA	2100
ACTGGTTGGT TCGCTCAAGC CGTAGCTACC AAGTACCATT TGCAGACTTT ACTTTGACAT	2160
CAACTCTTTA CGATATTGAT GTTACTGGTT ATGAAACAGC GACTAAAAAC CGCTTGCGTT	2220
TGTTTGACTT GGATTGAGTT GATTCTTCTA TTATTAAAGA TGGTATCAAC TTTGACAAGA	2280
CAGATATCGC TCGCAACTTA ACTCTCTTCC TTTACCCAGA TGATAGTGAC CGTCAAGGTG	2340
AATTGCTCCG TATCTTCCAA CAATACTTCA TGGTTTCAA CGGTGCGCAA TTGATCATCG	2400

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ACGAAGCAAT CGAAAAAGGA AGCAACTTGC ATGACCTTGC TGA CTACGCA GTTGTC AAA	2460
TCAACGATAC TCACCCATCA ATGGTGATTC CTGAATTGAT TCGTCTTTTG ACTGCACGTG	2520
GTATCGATCT TGACGAAGCA ATCTCAATTG TTCGTAGCAT GACTGCCTAC ACTAACCACA	2580
CAATCCTTGC TGAAGCGCTT GAAAAATGGC CTCTTGAATT CTTGCAAGAA GTGGTTCCTC	2640
ACTTGGTACC AATCATCGAA GAATTGGACC GTCGTGTGAA GGCAGAGTAC AAAGATCCAG	2700
CTGTTC AAAT CATCGATGAG AGCGGACGTG TTCACATGGC TCACATGGAT ATCCACTACG	2760
GATACAGTGT TAACGGGGTT GCAGCACTCC ATACTGAAAT CTTGAAAAAT TCTGAGTTGA	2820
AAGCCTTCTA CGACCTTTAC CCAGAAAAGT TCAACAACAA AACAAACGGT ATCACTTTCC	2880
GTCTTGGCT TATGCATGCT AACCCAAGAT TGTCTCACTA CTTGGATGAG ATTCTTGGAG	2940
ATGGTTGGCA CCATGAAGCA GATGAGCTTG AAAA ACTTTT GTCTTATGAA GACAAAGCAG	3000
TTGTCAAAGA AAAATTGGAA AGCATCAAGG CTCACAACAA ACGTAAATTG GCTCGTCACT	3060
TGAAAGAACA CCAAGGTGTG GAAATCAATC CAAATCTAT CTTTGATATC CAAATCAAAC	3120
GTCTTCAAGA GTACAAACGC CAACAAATGA ACGCTTTGTA CGTGATCCAC AAATACCTTG	3180
ACATCAAAGC TGGAACATC CCTGCTCGTC CAATCACAAT CTTCTTTGGT GGTAAAGCAG	3240
CTCCAGCCTA CACAATCGCT CAAGACATTA TCCATTTAAT CCTTTGCATG TCAGAAGTTA	3300
TTGCTAACGA TCCAGCAGTA GCTCCCACT TGCAAGTAGT TATGGTTGAA AACTACAACG	3360
TTACTGCAGC AAGTTTCCTT ATCCCAGCAT GTGATATCTC AGAACAAATC TCACTTGCTT	3420
CTAAAGAAGC TTCAGGTACT GGTAACATGA AATTCATGTT GAACGGAGCT TTGACACTTG	3480
GTA CTATGGA CGGTGCTAAC GTGGAAATCG CTGAGTTGGT TGGAGAAGAA AACATCTACA	3540
TCTTCGGTGA AGATT CAGAA ACTGTTATCG ACCTTTACGC AAAAGCAGCT TACAAATCAA	3600
GCGAATTCTA CGCTCGTGAA GCTATCAAAC CATTGGTTGA CTTCATCGTT AGTGATGCAG	3660
TTCTTGCAGC TGGAAACAAA GAGCGCTTGG AACGTTTTTA CAATGAATTG ATCAACAAAG	3720
ACTGGTTCAT GACTCTTCTT GATTTGGAAG ACTACATCAA AGTCAAAGAG CAAATGCTTG	3780
CTGACTACGA AGACCGTGAC GCATGGTTGG ATAAAGTCAT CGTTAACATT TCTAAAGCAG	3840
GATTCTTCTC ATCTGACCGT ACAATCGCTC AGTATAACGA AGACATCTGG CACTTGAAC	3900
AATACTCTTC GAAAACTCT TCAAACCACG TCAGCTTTAT CTGCAACCTC AAAGCAGTGC	3960
TTTGAGCAAC TGCGGCTAGC TTCCTAGTTT GCTCTTTGAT TTTCA TTGAG TATAAGATAC	4020
AAATTTATAC TAATACATTT TGTAAAAAG CGAGTTTCGA TTGAAATTCG CTTTTTTAAT	4080
GATGTAGATT TGGGTCAATC TTGTCTAAAA ATAGGGAAAT CCTAGATACA GTGAAGGCTT	4140

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TAAATGCTGG TTTTACTGT CCTCAGCCTT ATATTTTTC GTAGTTGGTT ACCTCATATC	4200
TATTATATTC GCTTACATAA AGTATTATAA TATAATTGTA GGAAAGAAGG TGTTTTATG	4260
ATATACACAC TTAAATTGGT GTTGTATTATT ACCTTCTTG TAATAAGCTT GTTACCTGAT	4320
AAGATTTTGG GAAAAAATAA AAAAATTGG AAAATAGTTT TTGCAATATT GACGGCAGTG	4380
GCAGCATTGT CATTTATGTA CTAAGTTATT TTAAGAATGT AGGGAAATAA ACCCTACATT	4440
CTTTTCTAGT TTTTCTGTT TCTAAATTCT ATTTATCCAA GCGATTCAAC ATTTCTTGCT	4500
TCTTCGCTTC AAGTTCTGCA CGCTTTCTT CGATTTCGGC ATGTTTTTTC TCGAGTTCAG	4560
AACAACTTGC ACCATTGCTA AATTCTTTTC GCCATCAGGA GATAGGGTGA GTCGACATGT	4620
CTATTACTCA CCCAAAGCAG TCCTACAAAG CAGGAATTTT CTGTACTTTT TTTGGAAATA	4680
GTAACGTTTA TACAGCTTGG AACTTTCGTA TCAAAGCGCC AAACACACTC CGAGGGGTTT	4740
ACAGAAAGCA GAAAAGGAAT GATCTGGTAT AAGATCATTC CTTTTCyCTC TTTTCTTTA	4800
AGTAATTATA TACAATGTAC GACGAAGTCG TCATTGCAAT GCTGATCCAC CACCTAAAGG	4860
GAACTTTAAA CAACATTGAT AAGATAAGA ATATAACAA CGAAATACG TTATACCCAA	4920
TTAATTTTAT TGTATATCTC ATGATTAAAA GTTAATCCTT CCGTTGTTAG GAATGGCATC	4980
ATTTTATCC CATAATTGTG CTAAATAAGT CCCCAGTGAT AATAAATTC TAGCGAATTC	5040
TAAAGCAACA TCATTTACAA ACCAACTACC TAGATATCTA GAAATGCTG AACGAATAGC	5100
ACTTTTGGCT GCATGTTTTT CTTTACTTTT AATTAGATTT GCAAGGCCTG CAGTAGTTCC	5160
TCCTAATGCT AAAGCTATTG CAGTATCTAA TAGAGCACCC ATTTGATTAA CTGTAATACC	5220
TTGCCAAACT GCTCTAAATG GAGAGTATGT AGGTGGGATT GTATAATCGC CTTGTAATTG	5280
TCGGTTAATT ACTTCTTTGA TCCATTGTTG TGAGACGTCT GGATGAAAAG ATTGGATTTC	5340
GTTTGCAAGT GTATTGATTT GTTCTTCTGT TAGAGAAGTG ACAGGTTGAA GTTCCATATT	5400
TGTTTCAATT TGTGATACTT GTTCAGAAGC GTATACAGCT GAAACACTTG GAATCGCTGA	5460
TACAATTAAC ACAATTGACG TCAAAAAAAC CGAAATAAAT TTCATTAATT TGTTCATGAG	5520
CTTTCTCCT TTTTATTGTC ATCTGCTTAC ATTTTATCAT ATACTGTTAT TATAGTCAAA	5580
AAAATATGCT ATTATGTTAA AAAAATATTT TTCAAAATAT AAATGGACGG ATTTATTTTG	5640
GATTTTATTT GTTATTTGA CCTGCCTCTA TATTGGTAAC CATGATTTGT TTA CTCTCAA	5700
TCATCAAGAA TTCTCTTTTC GTGGTAGCGT TTGGGGTCTG GTACTGGCCT TATATCACTT	5760
ACTATTCATT GATAAGTTTG TTATATCGAA TCGAAATAA AGATTAGAGC TATGCTTGAC	5820
TGTGTACTTT TAGGATTTAT TTTGGAGGAA GATTTTGTCT CTATTATTTA TTATTTTAA	5880
TTTATTTATT TTGTATAAGA TCTATCTTT	5910

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(2) INFORMATION FOR SEQ ID NO: 166:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5406 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 166:

GGCATAGCGA CTCATTTTTT CAACTGTCCA GGCTGGATAC CAGACTAATT TAACCTCAGT 60
ATCCGTTACT TCTGGAACCT CTATCATAGC ATCATAAATC TGGTCTGTCA AAAGGTCTGC 120
TAAGGGACAA CCCATAGTTG TCAAAGTCAT GTCAATCTCT GTTTGCCCTG TGTACCCGTC 180
AAAACGAATC TCATAGATCA AACCAAGATT GACAATATCG ATTCCCAACT CAGGGTCGAT 240
GACTTCTTCC AAGGCTGTTA AAATCCGTGT TTGATGTTT TCAATTTGCT CTTCTGTATA 300
AGCCATATTT TCCTCACTCT TAGTCTTCAA TAAATCAGC AAGCGGTTTG CTACGACTTG 360
GTTGGCGTAG TTTTCTCAA GCCTTTGCTT CAATCTGACG GATACGCTCA CGAGTTACGT 420
TAAAGACTTT CCCCACATCT TCAAGTGTGC GCATTTTCC ATCATCTAGT CCAAAACGTA 480
GACGCAGAAC ATTTTCTTCA CGGTCTGTAA GAGTATCTAA GATTTCATCC AATTGCTCAC 540
GCAAGACGAT ACGAGTCGTA TAATCCACTG GATTTTCAAT CACTTCATCT TCGATAAAGT 600
CTCCAAGGTC GCTATCGTCC TCTTCACCGA TAGGAGTTTC AAGAGATACT GGTCTTGGG 660
CAATCTTCAA GATTTCACGA ACCTTATCAG GTGTCATATC CATTCGTTCA GCAATCTGTT 720
CTGGTGTCGG ATCTTGCCCC AATTCTTGAA GGAGATTCCG CTGTTACGA ACCAATTTAT 780
TGATAGTTTC AACCATGTGA ACTGGGATAC GGATGGTACG AGCTTGGTCC GCAATAGCAC 840
GAGTGATAGC CTGACGAATC CACCAAGTTG CATAAGTTGA AACTTGAAC CCTTTAGAAT 900
AGTCAAACCT GTCAACCGCC TTCATCAAGC CCATATTTCC TTCTTGAATC AAGTCAAGGA 960
ACTGCATACC ACGACCGACA TAGCGTTTGG CAATGGAAAC AACCAAACGA AGATTGGCTT 1020
CCGCAAGACG TTGTTTGGCT TCGATATCAC CAGCTTCAAC AGCCAGTGCC AACTCTTTCT 1080
CCTCTTCATT GGTCAAGAGA GGAACGACCC CTATTTCTTT CAAGTACATA CGGACAGGGT 1140
CATTGACCTT AGCAGAAGTT GACCCAATCA AGTCCTCATC GCTGAGTTCT GGTCTTCTT 1200
CATTGCTGAG AACACGCGCA CTTGGATTTC CTTGTTATC TGTGATAGAA ATGCCTGCAT 1260
CCTGAATCCG TTGCAAGAGA TCTTCAATCC CATCAGCGTC CAAGGTAAAA GGAATAACCA 1320
GACTTGCAAT GATTTCATCA TCTGTTGCTG TCCCTTTTGT CTTATGATTA CGGATAAATT 1380

		1068	
CTGCTACCTG	TACGTCAAAT	GTTGTTACTT	CTTTTGTGTT TGTGCCATT ATTACTCCAT 1440
TCTTCTCTTT	TGGGAAATTA	AACGTTCCAA	TTCTTCTAGG GCTGTATCTG TATCTCCTAC 1500
ATGGCTAGCT	TCCTGCACCT	TCTTTTGTAT	TCTCATATTG TCCTGATTCA AGAGAGCCTT 1560
GTTTCGAGTC	ATCTCTACTT	CACTAAGTTC	CTGCGGCGAT ATCTCAGCAG GCAAATCCTG 1620
AGCTAAAACT	TGGTACCAAG	CTCTTTCAAC	TTCTCTGTGC TGCTCTGCTA AAACCTCTGG 1680
AGGAAGATTT	CCATACTGGC	CAAGCAAGTC	ATATAAGACC TGAAATTCAG GTGTAGCAAA 1740
TGCAAAGTCT	TCTCGCAAAC	GGTAATCGTT	CAAAACAAGA GGGGATTCCA TCATCCGATA 1800
GAGTAGATGG	GCTTCTGCCC	TCATAATAGC	CGATAACTGC TTGGTGACAG GCATGGTGAT 1860
TGGCGTCGGT	CTGGAAATTC	CTTCCATGCG	ATTCTGCCTT TGCACCTGAC GACTCTCATT 1920
AACAATCTGC	TCAATCTGGG	TATAATCAAA	GGACGCCAGA CTGTCAGCTA AAATATGAAT 1980
ATAGCTGTTT	TGAGCAGCGA	TGGACTTTTC	TTGAACAATC AAGGGAGCTA TTTTTC AAG 2040
AAACTCAATC	TGAGCCTGCA	GATTTTCACT	GTTTTTCAGG TTGTACTGAT GAATGTAGAA 2100
CTCAATCGGA	CTAATACGAG	TTTTCGTTAA	TAGATAGGCC AAGTCTTCTG GACCATT TTTT 2160
TTGTAGATAC	TCATCAGGAT	CCAAGTTATC	AGGCATGCTG ACGATTGCA CAGGCATATC 2220
ACCAATTTCA	TCCAATGCTT	TCAATGTCGC	GGCTTGCCCA GCCTTATCTC CATCGTAAAC 2280
AAGAACCAAT	TTCTTGGTTA	ACCTTTTCAG	ATGCTCAACA TGCTCTCGAC TCAAGGCTGT 2340
TCCCATCGAC	GCCACAGCAT	TTTCGATTCC	AGCCCGATAG GCTGCAATAA CATCCATGAA 2400
TCCTTCCATC	AGGTAAATCT	CACTAGCTTT	TCCAGAAGAT CTTTTGCCC TATCCATATG 2460
ATATAATTCT	TAACTTTTGT	TAAAAATTGC	AGTCGATCGG CTGTTTTTAT ACTTAGAAGT 2520
TTGTGAATCC	GTTTTTTGCC	AGATACGACC	TGAGAAGGCA ATGACCTTTC CTTGGTCATT 2580
TGTCAGGGGA	AACATAATGC	GATTGTGAAA	GGTGCTTACA AATTGATTGG CATCCGAGAG 2640
ATAAAACAGG	CCTGAATCCA	GTAATCCTC	TTCACGATAC TGATCAGACA AACGTTGATA 2700
GAGATAGTTT	CGTTCTGGAG	GTGCTAAACC	AATCCAAAAA TGTTTAAGCA CTTTCATCTGT 2760
CAACCCCCGC	TGATAAAGGT	AATTTCTGGC	CTCTTCGCCC ATAGTCGTTG TCATGAGAAT 2820
AGCATGGTAA	AATTTGGCTG	CATCTTCGTG	CATATCATAA AGAGCTTGGT GAGGTGAGGC 2880
TGACTTCTGC	TCACTATAAA	GCGGTTTTTC	AACCTCAATT CCAACACGCT GACCTAAGAT 2940
TTGGACTGCT	TCTATAAAGG	GAACCCCTTG	GTACTCCTCG ATGAACTTAA AGACATCACC 3000
TGAGCGACCA	CAACCGAAAC	AGTGATAAAA	CTGCTTGCTC TCTACAACAT TGAAAGATGG 3060
TGTTTTTTCA	CCATGAAAAG	GACAGAGCCC	TAGATAGTTC CGTCCTGCCT TTTGTAAAGA 3120
AATCACATCT	CCTATGACTT	CCACAATGTT	GGCATTGTTT TTGATTCTCT CAATGACTTG 3180

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TTTGTC AACC ATACACAATA CCTCCATGTT ATCATAGTTT ACTTTATATA GTATACTTTA	3240
TTTCAGAAAA AAAGTAAACC ATTTCACTCA TTTTCCCTAC TTTATTCAAA GAGTTGATAA	3300
TAATCAGAGA TTTTCATTTT TGCTTTTCT TCTTGGTTTA AATCTGGAT AATTCGTCCT	3360
TCTTTCATGA CAATCAAGCG ATTGCCGTAT TTGAGAGCAT CTTCCATATG ATGAGTAATC	3420
ATAAGGGCTG TTAGCTGATC TTCTTAACA AATTCATCTG TCAATTCCAT CAAAGCAACA	3480
CTAGTCTTTG GATCCAGGGC AGCAGTATGC TCATCTAACA GGAGTAATTC AGGTCGCTTC	3540
AAGGTTGCCA TCAAGAGACT CAAAGCCTGT CTTTGTCCTC CTGATAAGAA CTC AATCGGT	3600
GTATTCAAGT GTTCTCAAG ACCATTTCTT ACTTTTCAA TGGTTCCTG AAATTCATCC	3660
TTATAGCTAG TCAAGCGTCG TGGTAACAAT CCACGCTTTT CACCACGAAA CTTGGCGATT	3720
AAAAGATTTT CAGCGACCGT CATACGGGA GCTGTCCCA TCTTTGATC TTGGAAGACA	3780
CGAGACAGGT ACTTGGCAGC CTTCTCGGGT GAAAACCTAG TGAGATCTTC ACCTAAAATA	3840
CGGATAGTTC CACTAGTTAG TGATAAGGTC CCTGCTATAG TGTAAAGAG AGTTGATTTT	3900
CCAGCACCAT TTCCGCCCAA AATCGTGATA AAGTCCCGTT CAAAAATTC TAAGGAAACA	3960
TCATTTAAAA TAATCTTTT TCATCAAAG CCATTTTAA CGATTTTGGT TGCATTTTTT	4020
AATCTACAA TTGCTGTCAT TTGCTTAACT TGGCTCCTT CAAGATTGTT TGCTTAAATG	4080
TTGGAATCAT GAGGCAGACT GCTAAAATCA AGGCACTGTA TAAACGAAG TAACCTGTAT	4140
TAAAGCCAAG TGCATAACT GCCCACATA AAAATTGATA AGCGATAGAA CCTACAACGA	4200
TAGTAACCAA ACGCTCTGCC AAGCTCAAAC TCTTGAAAT AACTTCTCCA ATAATCAAAC	4260
TTGCAAGCCC CACAACGATA ACCCCGATCC CTCGAGACAC ATCGGCATAA CCTTCTTGCT	4320
GAGCAATGAG GGCACCTGCA AGGGCAATCA CACCATTGA TAAGACCAAG CCCATGAGCT	4380
CCATGCGTCC AGTATGAATC CCGAACTTC TAGCCATATC AGGATTATCC CCTGTAGCAA	4440
TATAGGCTTG TCCGAGTTTA GTGTCCAAGA AAAAGAGCAT GAGAGCAATA ACAATACTCA	4500
CAAAGATGAG ACCTGTCAAG AGTTGATTCA AATCCGAATC AAAAGGCAAA ACATCCTGAA	4560
TTTGCTTGGT TCCAAGCAGG CCTAAATTC CACGTCCCAT AATCAAGAGC ATGATTGAGT	4620
GACAAGAAGT CATCACCAA ATCCCTGAGA GCAAGTTGG GATCTTCCCT TTTGTATAAA	4680
GAAGGCTGC TGCCATTCCA GCCAAACAAC CTGCTCTAC AGCAACAAGT GTCGCTAAAA	4740
ATGGGTTTAC GCCTTTGGTT ATCAAAGTGA CAGCAACAGC TCCCCAAGA GGAAGGAAC	4800
CTTCTGTCGT CATATCTGGA AAGTTTAAAA TCCTAAATGT CATAAAGATT CCCAGACCTA	4860
GAATAGCCCA GACAAATCCT TGAGAAATA TGAACAAT CATATTTTAT TTAATCCTTT	4920

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CTATATTCAT CTTTTTAAAA AATGGGAAGA GTCTCCTCCT CCCTACCTTA TTTATTCGAT	4980
GACTTGTCCT GCTTCTTTGA GAACAGACTC AGGAATAGTA ATACCTAGTT CTTGTGCTAT	5040
TTTTTTATTG ATGACTGACT TACCAGTTGA AAAGACATTG ACTGGGGTAT CGGCTGGTTT	5100
TGCACCTTTC AAGACTTGCA CAATCATTTT ACCTGTTGCC ACACCAAGGT CATGTTGGTC	5160
AATTACAACCT GATGCCAAAC CACCTACTTC TACCATAGCT GTCGCACTGG GATAAATTGG	5220
TTTCTTAGAA CTTTGATTGC TAGAGACAAC CGTTGGAAAT CCTGATGCAA TGGTGTATC	5280
AATTGGAACC CAAATAGCAT CTACCTTGCT AGTCATAACA GTGACAGTTG AGGCAATTC	5340
ATTTGTTGAA GGAAGTGCAA ATGTTCCAC TGTCAGACCT GCCTTTTCAG CATAAGCCTT	5400
AAATTC	5406

(2) INFORMATION FOR SEQ ID NO: 167:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9711 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 167:

CAGCTTGCTC TTA CTATTAT AGCAGATGTT ATAGCTGGAA TTATCTTGTA TTTCGTCTGC	60
AAATGGCTAG ATGGTAAGAA GTAGACCGAA TCACTAGCCT ATAAACACCC GTTAAATCGC	120
TAAGATACGT CAAAAAGCC CTTAACTATG GCACTAGTTA GGGGCTTTGG TGTCTAATG	180
AACCTTATAC ACTAACTACA TTCTAGCATA TAAGCCCAGA TATTTCAAGA GTTTTATTTA	240
TTGTTTAAAG TTCTGAAAGG TCTATAATGA AGTTAGCCAT CTAGTATCAA AAAACCGACT	300
AGCTCTTATG AACTAGTCGA TTTCTCATCA ATGCGCCAAC ATTTCTTGGG CGATTCTCTG	360
GCCAGATAGG TTATCTGGGT AGTAGGTTGG CCAGTTGTCC ATTTCTTCAA AGAGGGCTTC	420
TTGGCTTG TG CCTCAAAGA AGATATGGAA ATGTTCTGCC TTAAGTGGG CAACATTG	480
GTCATAAAC TGAACATACT TGAATTGTCC AGCGTCAGCA TCTGTGGCTT CAAAGAGGAA	540
ACGCACGCCA CGATTGCCTT TCTTGTAAGT CAAAATTTTC TTACCGACAT ACTTGTAAGT	600
GTATTTCTTG CTTTGTCCAC CTTGAACAAA TTCCATAGTA TTATCAGTAA TGTTAATCTT	660
AGTCACATCT GTATGATAGC CTTTGTGATA GTAAGCCTTG TACTCAGCCT GGGTCATCTT	720
ACCAGTCAAC TTAGCCTTGT AGTCAAAGAC TTGGTCAAAC GTGCCGTCTT CAAGGAAAGG	780
ATAAACTGAT TGCCAGTTAC CTGCATAGTC ACTCAAGGTG CGGTCCTTGA CAGCTGCATC	840
CTCGAAGTAA CCATTTTGA CTGTCTTGGT ATCCTCTGCC TTTTCAGGTT CAATTGCTGG	900

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GCCTTCTTGG TCTGTTGTTT GTTTCAAAGC CTTGAGGTTT TTCTCCATCA CGGAAATGTA	960
GTTTTCTCCA GCCTTGGTGT CCTCTTCTGT CAGACTTTCT AAAGGATTGA GGACATCACT	1020
TTTGACACCT GCTTCTTTTG AAAGTGTGTT AGCAAGGGCT TGTGAGGCAT TTCTTCAAAA	1080
TAGATATAGG CGATTTTATT TTTCTTGACA TACTCTGTCA ATTCTGCCAA GCGAGCAGCT	1140
GATGGCTCTG CATCTGGAGA AAGTCCTGAG ATTGCGACTT GTTTGAGTCC ATAGTCCAAG	1200
GCAAGATAGT TAAAGGCTGC GTGTTGAGTC ACAAAGCTCT TTTGTTTGC TTGAGACAAA	1260
CCTTCTGCGT AAGCCTTATC CAAGGCTTGC AATTTTTCGA TATAGGCAGC TGCATTCTTC	1320
TCAAAGGTCT CTTTTTATC AGGATAATCT GCTGACAAGC TGTCGCGGAT GTGCTCTACT	1380
AGTTTAATGG CACGAAC TGG TGATAACCAA ACATGGGGT CAAACTCATG GTGATGACCT	1440
TCTTCTCCAT GGTCTGCTC TCCCTCTTCT TCCTCGCCAC CTGGCAAGAG CAACATATCG	1500
CCTGTCGCCT TGATGGTTT CACTTTTTC TTATCCAAGG TATCTAGCAA TTTAGGTACC	1560
CATGTTTCCA TGTTTTCATT TTCATAAAGC AAGGTATCTG CATCTTGGAT TTTGGCAACT	1620
GCCTTGGCAG ATGGTTCGTA TTCATGAGGT TCTGTCCCAG CACCGATTAG GAGTTCTACA	1680
TTAGCCGTAT CTCCTGCGAC TTGCTTGGA AATTCATAGA CAGGGTAAAA GGTGTGCACG	1740
ATATTGAGTT TACCATCTGC CTGTTTTTGA TTGGAACAAG CCACTAAAA CAAGGCACAT	1800
AGACTGGCTA GTAATAAGCT AATTTTTC ACGTTCGTCT CCTATTGAT AAAAGTCTT	1860
ACTAACTGA TTAGTATAAA GACAGTTACA AAAATAATGG TAATACTGC ACTTGCAGGT	1920
GTTTCTGCAT AGTAGGAAAT GTAAAGTCCT GCTACCATT CCAAAAAGCC AATCGCACTG	1980
GCAAGCAGCA TAACCGATTT AAAGTTTTTC CCCAGACGCA GGGCAATACT AGCTGGCAAG	2040
ACCATAATGG TCGATACCAG AAGAGCTCCT GCTGCAGGAA TCATAAGGGC AATAGCCACC	2100
CCTGTCACCA TGTTAAAAAG AATGGACATG GTACGAACTG GCAAGCCATC CACAAAGGCC	2160
GTATCTTCGT CAAAAGTTAA GATATACATA GGACGAAGAA AGAGAAAGGT CAAAATCAAA	2220
ACAACCGCCG CAATGACAAA GAGGGAAATG ACCTGTTCTT CACTGATAGT CACGATCGAA	2280
CCAAAGAGAT ATTGGTCCAA ACTCATTGAA CTCGAGCTTT TACCCTTGCT CATGACAATC	2340
AGAGAAACAG CCAGACCTGT TGACATGAGG ATAGCTGTCC CGATTCCAT AAAGCTCTTG	2400
TAAACCGTAC GGAGATACTC CAGAAAGACC GCCGCAATCA AGACAATGGC AATAGTAGAA	2460
ACAGTTGGAG AAATCCCCAA AACCAGACCA AAGGCTACAC CTGAAAGTGA GACGTGGCTA	2520
AGGGTATCAC TCATCAAACCT CTGACGACGC AAGATGAGGA AGGTTCCCAA TACCGGTGAG	2580
AAAAGACTCA TAGCAATAAC CGCCAAAAAG GCGCGTTGTA TAAAGTCGTA AGATAATAAA	2640

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CTAAGCATGG CCCACCTCCT GGCCATTCTC ATGAACATTG AAACAACGCC ATGGCGAGTC	2700
TTGGTTACGG ACTAGATGAA TATTGCGATC CGCATAATCC TTAACCTCTT CAGGGTCATG	2760
GGTAATCATC AAAACAGCCT TGCCATGATG ATGGGCGCTG TGGTGCATGA GTTCGTAAAA	2820
TTCATTTTTA CTTCTGTCAT CCATCCCCGT TGTCGGCTCG TCTAGGATAA ACACATCAGG	2880
GTCAGAAGCA AACATACGCG CAATTACCGC TCGCTGCTTT TGTCCTCCAG ATAGAGACCC	2940
CAAGCGTTTG TCTCGATGTT CCCACATGCC AACTGAGTCC AGACTAGCCT TGATATGCTC	3000
CTCATCATGA GCATTCAAAC GACGGAACCA GCCTTTTCTC GGATAGCGAC CCGACTTGAC	3060
AAATTCATAG ACCGTAATTG GAAAACCAGC ATTAAACTG GCAATTTGTT GAGGAAGATA	3120
GGCTATTCTC AATTCTTAC CTTGCGTATT TGTCTTTGAA ATAGCCACCT TTCCAATGCG	3180
TGGTTGCAGA ATTCCAAGAC TAGCCTTGAT GAGCGTCGTC TTAGCCGCTC CATTTTCCCC	3240
AGTCAAGGTA ACAAATCCC CACTATCAAC ACAATAATTG ATATGTTCAA GAACAGGCTC	3300
CTTATCATAA TAGAAGGACA AATCCTCTAC CGTAATATAT CTCATTATTT GATTTCTCCT	3360
ACTAAAGCAG TCAAAAACCG CTGAATCACT TTTGTTCAT TTGGAGTAAA CTGAGTCGCC	3420
ACTTGTTTAT AGGTTAAAAG TGTATGCTCA TGGTGATGGT GGTGCTCCTC AGCGATTGGA	3480
CGAGCCAAGT CAGTCAACTG ATAAAAATC ACACGCGCAT CTTTAGAATC TTTAGATGTT	3540
TCCAACATCC CTTCTTGAC CAAAGACTTA ATGGCCTTGG TAACTGCCGC CTGACTGACA	3600
TTGAGACGAC GGGCCAATTC TGAATTTGTT AAAGATTCCT CTGACAGAG CATAAGGATA	3660
TGCTCCTGAG TATTGGTCAG GGCCACCTCG CTAGTGCAAT GACCTATTAG GATTTTCATG	3720
TGATTTTCCG CCTGCAAAAT CACCTCATTC AAAAAAGCAT TGATATCCTT TGCTAGCTGT	3780
CTCATATCTG ACTCCTTTCC TTTTAGACTT CTCTTTTATA AGAGAAAAAT ACTATTCTTT	3840
GACATTTTGT TTACCACTTA ATTATATCAC AAGCAAAAAA AGAGTCAAGA AAAACGTGA	3900
AAACTAGTTT CATTCTTGAA CTCTCTATA TTATATTATC TATTGAAAT CTTTGACATC	3960
TCCATCATAA GTCGCCCAAT CTTTGCTGAA AAAGCGCTCA TTCAGATGGT AAGTCGGAGC	4020
TGGTGTGGGA TTGGATAGGA AAGGATCAAC TGCCTTGTC AAAGCCAACC AACCCAACCA	4080
ACCAAGGTGA ATGGTGTCCT TCATAAGAA AGGCTCCCCG CCGTCCTTAG AAAAATCTGC	4140
TATATTGGTA AAACCTTGAC TTTCTAACTG GTAGCGAATC TTCTGCACCG TTTGTTGGTA	4200
CATATCCTCT CGTAGACCAG CATAGTTCAT CCATTTTTTA TTAACAGGTG GAATGATAAA	4260
AATCGGGTTT ACCTTAGATT TAGAAAACCTG TGTAAAACC AACTGCAAGT CATTATACTC	4320
TGGCGACTTG AGATAGGTAA AGCTTTTCTG AGAATCCTTT AATTCTTCA AATCCTTCTT	4380
GATCTGCTCA TTATAGAAAT AATTTTCCAT TCCCATCTCA TTATTGGAAG TATTTTTTTC	4440

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AGCATCTGCT TTGACAACAT CTTCTATTGC CTGATAAGAA AACTGGTCTG GCAAGATTTT	4500
TAAATACTTA GCTACATGCT TATCGTAGTT AACATAGCCT CTAACCGAAA ACTGACCAAA	4560
AAAGGAAGCT TGGCGTTCAT TAAAACGAGC CAATAATTCA ATCATTTCAT TGTCTGCTGT	4620
CGACAATTCT TCTTTACTTG CCAACTTCTG AACCAGGTCC TTCATAGCTA CGTTTGGGAA	4680
CTGTTGCAGT AAGCGAGTCG CTGCATATTG ACTAGCCTGA TCCCCAGATT GATGTTTCAG	4740
AAAAC TAGTC AACTGGTCTC CATTAAAATA CTGCTGGAAG GCTGCTGGAT CATAGCCATT	4800
TTTACTGAAC CACTGAGGTG AGATAACATA CACAACTTGT TTATTCTCCA GCTGTGGTAA	4860
CATCTGTTGC ATTCCAAAAT ATTGGTTAAG CGATGCAGCT CCCCCCTGTC CTAAAAGATA	4920
AGGACGGTAG GAACGATGTG ATTTCTCAGC TAATACCGCA GGATGAGCAC CGTCAAAACG	4980
AAGCCATTCA CTAGAGCCAA AGAAGGGAAC AAAACGCACA TTTGGATCAG ATAGTGCTCT	5040
GACTTTTGA CTTGCTCCT TAAACTATC GATAGTAGTA GCCACTGCTG AACGCTTTTC	5100
AGCTCCTAGA TTATGATGCA TCTCAGTAGG ATAAAAGAAA ATGAGCAGAA AAACCAACAA	5160
ACCAGCGATC AAGACCGGTC CGAAGATCAT CCATAAGCGT TTAAGCATTT TGTAGCTCCA	5220
CAATACCAGC TATGATTTTA TTAGCTGTAT TCCAGTCGTC ACGACCAAAC TCTGTTACAG	5280
GGACACGAAT GTCAAAACGG TTCTCAATCT CCACAATCAA CTCAACCGTT CCCATACTAT	5340
CCAAGACACC TGCATCAAAA AGATCTTCAT CCATCATGTC AGAAACATCT TCCATAAACA	5400
ACTCATCAAT AATTTCATA ACTTCTGATT TGATATCCAT ATTTTATTTT CTTTATTTT	5460
TTAAACCATA GATTATTCOA GAATCCAGAA AAGATTAAGA ATGACAACAT GACAACATGG	5520
AAAGTGACAA CCATGCCAAG CAACTGAATC CAGCGATTCT CAGGTAGGGC AGCCTTCCCT	5580
GCTTTTTCG GTTCCTTATT GAGCGTTTTT TTCTTGCGAA CCCAGGCATC ATTGATGACC	5640
AAGCCTAGTC CATGAAAGAG TCCATAGGCG ATATAGTACC AGGTCACACC ATGCCAAAAT	5700
CCCATAATCA GCATATTTAC AATGTAGGCC ATGCTTGAGG TTACATTACG ATTTTAAAG	5760
ACTTTCTTTT TGGTTAACAC CATCACCATT CGCATAAAGA CAAAGTCACG GAACCAGAAG	5820
GACAGACTCA TATGCCAGCG ATTCCAAAAC TCCTTTAAAT CCCTTGATAA AAAGGGCTTG	5880
TTAAAGTTGA TAGGGCTACG GATTCCCATC AAGTTTGAGA TGGCCAAAGC AAACATAGAA	5940
TAACCTGCAA AGTCAAAGAA GAGTCCAGA CCAAAGTAT ACATAACTGC CAAGGCATAG	6000
AGATTAAAGA AGCCACCTGA CTGCAAGGCT AAATCTTCA GAGGAGGTAG TAAGGTCTCT	6060
CCTAAACAT GAGCTAGGAT AAATTATAC AAAAAGCCCC ACATGATATA GCGGACAGAT	6120
TCATCCAGCA TATCCATCAA CTCATCTCGC TCAGGAATAG CCTGATAATT TTCATTAAAT	6180

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CGCTTAAAGC GATCGATTGG ACCACTCGAG AAAGTTGGCA TGAAGAGAAG GAAACGGAGG	6240
AATCCCCAGA GGGTAAAATC CTTAATCACT CCATCTCTCA GCTCGATGAC AATTCCAACC	6300
GAACGAAAGG TCAGGTAAGA AATTCCCAAG AACCCAAGCA AAGACTGCGT TCCATTGATA	6360
GCTGGTTGCA CCTTGACAAA GATAATCGGA AGTAGGGACA GAAACTAAC TAAGTAGAAG	6420
ACCCACTTGC CATCCTTGCT TTTTCGATAA TGCTTGTAAGA AAAGCAGGAG CAATATTTCC	6480
CAGCAAAGGT AAATACCCAA GGCAGCTAGT TGATTGGTCT TTCCACCCAC CAACATGGTG	6540
ACAATAAAGA AGAGACTTAC CAACACTTCA TACCAGGCAA AGCGTTTCTT GAAAAAGAGA	6600
CCTATAAAGA TGGGCAAGGT TGCAGCAATC ACATAAACAA AATACTGAGG ATTGCCATAT	6660
GGCTCTAAAT GAGGAAGCTG TTGAAAAAAC TCCATCATCT CTTATTCACC TCGTTAATCA	6720
ATCCTTTGAT GTCAATCTTT CCATTGGAG TTAGTGGCAA ACTGTCTCGG TAAAGGAATT	6780
TAGATGGCAT CATATAGGAC ATCATGATGT CTGTCAGGTC TTCCTTGATG GCCTTGGTAA	6840
TATCGATATC TCGCTCAAAC TGCTCACGAA CACCGTCTTT TAAGATGACA TAAGCCAATA	6900
GATTTGTAC CTTGTGGTCC TTGTTATAGC GCGGTACTGC GACAGCAGAT TCGATAAAGC	6960
GAGACTTGTT GAGGTTTGA GAGACATCTT CTAACCAAT GCGGTAACCG TTAAACTTAA	7020
TCTGGAAGTC CATGCGTCCG CCGTAGAGAA GCAAGCCCTC ATCTGTCATG GTTCCACAT	7080
CGCCTGTGTG ATAGGCTGGC AGATCTTCAA ACTCAAAGAA GGCTTCTGCT GTTTTTTCAG	7140
GATTGTTTAT ATAACCTTTT GAAACAGCTG GCCCAGAAAC AATGATTTCT CCCTGCTCAC	7200
CATTTGGCAG TTTATTTCTT TCCTCGTCAA TGATAAAGGT TGGAGAATCA GCCTTGGTAT	7260
AGCCGATTGG TAGGCGTTTG AGAGTCGCTA ACATCTCGTC TGTCACGGCA ACTGCTGACA	7320
GAGCTACTGT CGCTTCTGTT GGGCCGTAAG CATTGATGAT ACGGGCATTT GGGAAACGCT	7380
CGCGCAGTTT TTGAGCTGTT TTGACCGTCA ATTCTTCACC ATCAAAGTAG AAATGCGTGA	7440
TTCCAGGCAT TTTCTCACTG TTGAAGTATT CAGACAACAT GGCCATATCT GCAAAGGATG	7500
GTGTTGATGT CCAGATAGCG ATTGGCAATG AAAAGATAGC CGCAAAGAGT TGCTTAAAT	7560
CCTGAGTGAT GACTGAAGGA AGAGTGAAAA GCGTACCACC AAGTGCCAAG GTCGGTGCCC	7620
AATACATGAC AGACAAGTCA AAAGAATAAG GTGGCTGTGC CAGCATTTGC GGACGACTCG	7680
GTGTCGAAA TTCTTATCC GTAATCATCC AGTTGTAAA GCTGAGGAGA TTATCATGTG	7740
AAATCTGCAC TCCCTTAGGC TTACCAGTCG TACCAGAAGT AAAGATAATG TAGTAATTAT	7800
CATCTCCCTT GACTGGATGC GTGATTTTAT AGTTATTCCC TTGGGCAAAG GCTTCTTGAA	7860
CCTGAGCTAG ATTTATCATT GGTGTAGAAA CCTGCTCCAA GGGAAAGGCT GAAATGGCAA	7920
TAATCAAGCT TGGCTCTGCT ACTTCTAAAA TAGCTGAAAC TCGCTCCAAG GCCGAATGGC	7980

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TATCAATTGG AATGTAGGCA TGACCTGACT TAGTCAGCGC TACAAAGGTT GCCAACATTT	8040
CATATTCTTG GCCACCAAAA ACAACCACAG GAGACTTCTC AGGCAAGCCT AGTTGGTCAA	8100
TGACTGCAGC CAAACTATCC GAATCAGCCT TAAATCGCC ATAAGTGTGT TCCTGCCCCA	8160
AAACATTATA GACAGGATAG CTAGGCTGTG TCTGAGCAA ATGCTCAATG GTTTCATCA	8220
TATCTGCTAT TGGTTTATTT GACACAATAG GGATTCTCCT TCAAGTTAAA ATTCATTATA	8280
GATAAAGCTT CCTTGACCCT GACCAAGATA GCTAAAGAAG TAAAGCAGCC CTAGAAAGAT	8340
AAGAAAATAC AAGGCTGTCC GACCAAGAAA GAGGTACAAT TCTTTTCTCT GTTTCATCAA	8400
GAAAAACCAT TCATTCTGT AATTTTTCGC TAAAAATAAGA GTGATTCTTA CTAGCTTATT	8460
TTTCTACCAT TGTACCACTT TATATAGTAT CTTTTCATTT GTTTACCGTA TGTTCCTAAT	8520
AGATTTTCAGC TTATTTTAAG GATTATACAG TTTTCTATG TATATTTCA AATAGAGTGA	8580
TCCTGCTTCA AAATCCATT TCAGGAGACA ATGAAGTAAA TCTTCCATA ATAAAACACA	8640
CAATATCAAG TTTTTCAC ACCTGATACT ATGCGCTTTT CTGATTTTAA AAGACTTTT	8700
AACCACTCTC TCATTTAAAA TAATCTCGTC TGATATAAAT TAAAAAGCT TCTATCATCA	8760
GACAAATGCG TGATAGCCAA AAATGATGC TAATACCAA ACTCTCAGTA ATATAGCTCA	8820
TTAGCAAAAC AAATACTGAA AATGCTAATG TAGAAATCAC TTCAAGAACG GAATAGACAT	8880
TAACTAAATG ATTTTCTCT ACTGTTCTCT GAAGAAATAC ACTTTCAGGA ACTTCTTTA	8940
CTTGCATATA CATACCAACT AAAGCTGAAA ATAATAAAAA CATCTGTGCG TTTGAAAAAT	9000
ATAGAATAGT CAGTGTCCT ATTTCCATAG CTACAAGAGG AAAAAGAATA CTTTCCCCC	9060
AAATCATTC TACCTCTCTC AACTAGATGT AACTTACAAA ACCCCTGACC TCATGAGCCA	9120
CTTTCTTCTT CCTCATGAGG TCAGTTTAC TTTCTGCTGT TCCAGTATCG TTTTCTCTCG	9180
CTAGATTTCC TCAAAGGGC AGACTCCTCC CTGGTGCCT CACACGATTT TTTTCTCTCG	9240
ACTGTTCTTT AATGCATCAT TAACGACGCT TTTCTTCTAG GTGGTTCATA AGGAACAGGA	9300
AGATTCAGGT TGACTTTTCT AATCCTAGAA TAAAGTGCTG AAAACAATTC GGAATAGGCA	9360
TAGAGACTAG ACAATTTGAG GAGCTGCTTG CGTCCTGTTT GAACACATTT TCCCACCACG	9420
TGAAGAAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTCACC TCCAGCTAGA	9480
TGTTTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG AACTTCGTTT	9540
TTGATTAAGG TTGAATATC CGTTTATCG CAAAAAATC CCTCCTTCAT CTCCTTGATG	9600
AAATTCCTCG CTTGACCACG TCCACGATAA AGCTGAAACT GGTCTTGGCT GTTCCACTCG	9660
TCATATTTGT AACGAGAGAA ATAACATCGT AGAACAAGTA TCCTTCTTTT C	9711

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(2) INFORMATION FOR SEQ ID NO: 168:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3025 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 168:

CCCCTTTGTC AAAACTGTAA AATTAACGAC TCAACAATTC ATCTTTACAC CAATCTCAAT	60
GGAAACAAA AACAAATTGA CCTCTGTCAA AACTGCTATA AGATTATCAA AACAGATCCT	120
AACAATAGCC TCTTCAAAGG TATGACGGAT CTGAACAATC GTGACTTCGA TCCCTTTGGT	180
GATTTCCTCA ATGATCTAAA CAATTTTCTAGA CCTTCTAGCA ATACTCCTCC TATTCCTCCA	240
ACCCAATCAG GTGGAGGTTA CGGTGGAAAC GGCGGTTATG GTTCCCAAAA TCGTGGATCT	300
GCTCAAATC CGCCACCTAG CCAAGAAAAA GGCTGCTGG AAGAATTTGG TATTAATGTA	360
ACTGAAATG CCCGTCGTGG AGACATTGAC CCCGTTATTG GGCGCGACGA TGAGATTATC	420
CGTGTCATCG AGATTCTCAA TCGTAGAACC AAGAATAATC CTGTCCTTAT CGGTGAACCT	480
GGTGTCGGAA AAACGGCCGT TGTCGAAGGT CTAGCTCAGA AAATTGTGCA TGGCGATGTG	540
CCACATAAAC TCCAAGGTAA ACAAGTCATC CGTCTGGATG TGTTAGCTT AGTTCAGGA	600
ACGGGGATTC GAGGACAATT TGAAGAACC ATCCAAATC TCATGGAAGA AATTCGCAAA	660
CGTGAAGACA TCATCCTCTT TATCGATGAA ATCCATGAAA TTGTTGGTGC TGTTCTGCG	720
AGTGATGGTA ATATGGACGC AGGAAATATC CTCAAGCCAG CCCTTGCTCG TGGAGAACTG	780
CAACTAGTCG GTGCTACTAC CCTCAATGAA TACCGTATCA TTGAAAAGGA TGCTGCCCTC	840
GAGCGTCGTA TGCAGCCTGT TAAAGTCGAT GAACCAACGG TGGACGAAAC AATCACTATT	900
CTCAAAGGGA TTCAAAGAA ATACGAAGAT TACCACCACG TTCAATATAC AGATGCTGCG	960
ATTGAAGCAG CTGCAACTCT TTCCAATCGC TACATCCAAG ATCGCTTCTT GCCTGACAAG	1020
GCCATTGACC TCCTAGATGA AGCTGGTTCT AAGATGAACT TGACCTTGAA TTTGTGGAT	1080
CCTAAAGTAA TTGATCAGCG CTTGATTGAG GCTGAAAATC TCAAGTCTCA AGCTACACGA	1140
GAAGAAGATT TTGAGAAGGC GGCTACTTC CGCGACCAGA TTGCCAAGTA TAAGGAAATG	1200
CAAAAGAAAA AGATCACAGA CCAGGATACT CTTAGCATCA GCGAGAAAAC TATTGAGCAC	1260
ATTATCGAGC AGAAAACCAA TATCCCTGTT GGTGATTGTA AAGAGAAAGA ACAATCTCAA	1320
CTCATCCATC TAGCCGAAGA TCTCAAGTCT CATGTTATTG GTCAAGATGA TGCAGTCGAT	1380
AAGATTGCCA AGGCTATTCT CCGTAATCGT GTCGGACTTG GTACCCCTAA CCGCCCAATC	1440

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GGAAGCTTCC TCTTCGTTGG GCCAACTGGT GTCGGTAAGA CAGAACTTTC CAAACAACCTG	1500
GCTATCGAAC TTTTGGGTC TGCTGATAGT ATGATTCGCT TTGATATGAG TGAATACATG	1560
GAAAAACATA GTGTGGCTAA GTTGGTCGGC GCTCCTCCAG GTTATGTTGG CTATGATGAG	1620
GCTGGTCAAT TAACTGAAAA AGTTCGCCAC AATCCATATT CTCTCATCCT TCTCGATGAA	1680
GTGGA AAAAG CTCACCCAGA TGTTATGCAC ATGTTTCTTC AAGTCTTGGA CGATGGTCGT	1740
TTGACAGACG GGCAAGGACG CACCGTTAGC TTCAAGGATG CCATCATTAT CATGACCTCA	1800
AATGCAGGTA CAGGAAAGAC CGAAGCTAGC GTTGGATTGG GTGCTGCTAG AGAAGGACGT	1860
ACCAATTCTG TCCTCGGTGA ACTCGGTAAC TTCTTTAGCC CAGAGTTTAT GAACCGTTTT	1920
GATGGCATTG TCGAATTAA GGCTCTCAGC AAGGATAACC TCCTTCAGAT TGTCGAGCTC	1980
ATGCTAGCAG ATGTTAACAA GCGCCTCTCT AGCAACAACA TTCGTTTGA TGTAACGTAT	2040
AAGGTCAAGG AAAAGTTGGT TGACCTAGGT TATGATCCAA AAATGGGAGC ACGCCCACTT	2100
CGTCGGACTA TTCAAGACTA TATTGAGGAC ACAATCACTG ACTACTACCT TGAAAATCCA	2160
AGCGAAAAAG ATCTCAAAGC AGTTATGACT AGCAAGGGAA ACATTCAGAT TAAATCTGCC	2220
AAAAAGCTG AAGTTAAAAG TTCTGAAAA GAAAAATAA TCCTATAAAA AAGGAGTAGA	2280
AAATGAAATT TTTCTGCTTC TTTTCTTACT AAAATAACTG TAATTTCTTG ACAGCTTGCC	2340
CTTTGTCCAT TATGATATAT AGTAGACTGA ATCTGAAATA GTACGAAACA ATTGCTAAAA	2400
CATTTATAGA AATTAATTTT ACTTTCCCAA TCGATTGTT CTCATCTTAT TTCAATCTGC	2460
TATAGTCAAT TGAAACAAGA ACAAGACAAA AGAGCCTCAT AAAAGGTATT GCAACTTGGT	2520
AATACCTTTT TGAGGTGCTT TTTGATATGA GCCCATGTTT TCTCAATAGG ATTGTACTCA	2580
GGTGAGTAGG GAGGAAGAGG TAAAAGTTTA TACCCAAACT CTTCACACAA GAGTTCTAAC	2640
TTACCCATTC TATGGAATCT TGCATTATCC ATAATAATAA CCGATGGTGT GGTAAATGTT	2700
GGTAAGAGAA ACTTCTGAAA CCAAGCTTCA AAAAAGTCGC TCGTCATCGT CTCTTCGTAA	2760
GTCATTGGAG CGATTAACCT ACCATTCAAT TGTTAGACCT GCAACCAAAG AAATTCTCTG	2820
ATATCTTCTT CCAGATACTT TGCCTCTTCT TAACTGACCT TTTAATGAGC GACCATATTC	2880
TCGATAAAAA TAAGTATCGA ATCCTGTTTC GTCAATCTAA ACAGGTGCTA GGTGCTTTAA	2940
ACTATTAAAA TTCTTAAGAA ATAAGGCTAC TTTTCTGGG TCTTGTTTAT AGTAGGTGTA	3000
GTTCTTTTTT TTTTCGAGTG TAGCC	3025

(2) INFORMATION FOR SEQ ID NO: 169:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4104 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 169:

TTTAAGGTTT TAAAAAAGT TTTGAAAGG TTTCTTCTTT ATTTTTTAAG GGAGAGATAA	60
CGTTGATATC TAAATCGTGG TCAAAGCCGG CAATTTTTC TTTAGATGTG TATTGGTGAA	120
TATCATAATC TAAATCAGTT TTAGGACTGC TCTCCAAAA TCCTGAGTCT GAGCCGTAGA	180
CGGAATCCAA ACAGAGGTAA ACTTGCCTGT ATCAATACTG TGTTCTTCCA TGAAGTAGAC	240
ACCAACGTAG ATGCCGATGT TTTTAGCACC CAGTGATGCT AGTTTGTCTC GAAAGTTTTC	300
GACACCTTCG TTCATATTAG ACATGGTTTT GTCTTCCACG TCAAGCCAAT AGTAACTAGG	360
GCTGTAAGGA GAGGCAGCAT TGTAAGAAC TTCGGCAGCC TTTTCCATTT CTTGGACACT	420
TTTTCCAGCT ACATAAGCGT AGACAGCAAC TGGGACATTC CGCTTTTGAA GTTCAGTGAT	480
ATGACTCTTA TAGGCCTTGT CTATTCCATT GATAAATGAA GCATCATTTT CTTTGTGCGT	540
TTGAGCACCA CTGTGAACAC GAACAATAGC ACCTGAAATA TTTTGTGAGA GGGCATCGTA	600
GTTGATTTC TCAGGACGCT GCCAGCCAGA GAGGTCAATA ATCGGTTTGT CTAAGTGTTT	660
CAAAGCCTGT GCTTCAATCT GTGCTATATT GGATTTTGTT TAAACGATT GGCTGTCATT	720
AAGTGGGCGA TTGATGATTA AATGAACAT CATAATCCCA AAAAACTAA ATAAATAAG	780
TGGATGAATT TGTTTTCTCA TATCTTATAA TTCTACCCTA AAAATCAAAA AAAATCAAAA	840
AAATGGGTTA AGGAAGAGAC TTAGAGCAT TTTTTCATTC AAGAGTCCGG AATGATTGTA	900
AATATGGTAT AATAAAGGG AATTCTACA GAAAAGAGAA GATTATGTCA AATTTTGCCA	960
TTATTTTAGC AGCGGGTAAA GGGACTCGCA TGAAATCTGA TTTGCCAAAA GTTTTGACACA	1020
AGGTTGCGGG TATTTCTATG TTGGAACATG TTTTCCGTAG TGTGGGAGCT ATCCAACCTG	1080
AAAAGACAGT AACAGTTGTA GGACACAAGG CAGAATTGGT TGAGGAGGTC TTGGCTGGAC	1140
AGACAGAATT TGTGACTCAA TCTGAACAGT TGGGAACGG TCATGCAGTT ATGATGACAG	1200
AGCCTATCTT AGAAGGTTTG TCAGGACACA CCTTGGTCAT TGCAGGAGAT ACTCCTTTAA	1260
TCACTGGTGA AAGCTTGAAA AACTTGATTG ATTTCCATAT CAATCATAAA AATGTGGCCA	1320
CTATCTTGAC TGCTGAAACG GATAATCCTT TTGGTTATGG ACGAATTGTT CGTAATGACA	1380
ATGCTGAGGT TCTTCGTATT GTTGAGCAGA AGGATGCTAC AGATTTTGAA AAGCAAATCA	1440
AGGAAATCAA CACTGGAACA TACGTCTTTG ACAACGAGCG TTTGTTTGAG GCTTTGAAAA	1500
ATATCAATAC CAATAACGCT CAAGGCGAAT ACTATATTAC AGACGTCATT GGTATTTTCC	1560

1079

GTGAACTGG TGAAAAAGTT GCGCTTATA CTTTGAAAGA TTTTGATGAA AGTCTTGGGG	1620
TAAATGACCG TGTGGCGCTT GCGACAGCTG AGTCAGTTAT GCGTCGTCGC ATCAATCATA	1680
AACACATGGT CAACGGTGTT AGCTTTGTCA ATCCAGAAGC AACTTATATC GATATTGATG	1740
TTGAGATTGC TTCGGAAGTT CAAATCGAAG CCAATGTTAC CTTGAAAGGG CAAACGAAAA	1800
TTGGTGCTGA GACTGTTTGT ACAAACGGTA CTTATGTAGT GGACAGCACT ATCGGAGCAG	1860
GAGCGGTCAT TACCAATTCT ATGATTGAGG AAAGTAGTGT TGCAGACGGT GTGATAGTCG	1920
GTCTTTATGC TCACATTCGT CCAAATCAA GTCTGGGTGC CCAAGTTCAT ATTGGTAACT	1980
TTGTTGAGGT GAAAGGATCT TCAATCGGTG AGAATACCAA GGCTGGTCAT TTGACTTATA	2040
TCGGAAGCTG TGAAGTGGGA AGCAACGTTA ATTTCCGGTG TGGAACTATT ACAGTCAACT	2100
ATGACGGCAA AAACAAATAC AAGACAGTCA TTGGAAACAA TGTCTTTGTT GGTTCAAATT	2160
CAACCATTAT TGCAACAGTA GAACTTGGTG ACAATTCCCT CGTTGGTGCT GGTTCAACTA	2220
TTACTAAAGA CGTGCCAGCA GATGCTATTG CTATTGGTCG CGGTCGTCAG ATCAATAAAG	2280
ACGAATATGC AACACGTCTT CCTCATCATC CTAAGAACCA GTAGGAGCCT ATCATGGAGT	2340
TTGAAGAAAA AACGCTTAGC CGAAAAGAAA TCTATCAAGG ACCAATATTT AAAGTGGTCC	2400
AAGATCAGGT TGAATTACCA GAAGGCAAGG GAACTGCCCC ACGGGATTG ATTTTCCACA	2460
ATGGGGCTGT CTGTGTTTTA GCAGTAACGG ATGAACAAAA ACTTATCTTG GTCAAGCAGT	2520
ACCGCAAAAGC TATCGAGGCT GTCTCTTACG AAATTCCAGC CGGAAAATTG GAAGTAGGAG	2580
AAAACACAGC CCCTGTGGCA GCTGCCCTTC GTGAATTAGA GGAAGAAACA GCCTATACAG	2640
GGAAATTAGA ACTCTGTAC GATTTTTATT CAGCTATTGG CTTTGTAAAT GAGAAGTTAA	2700
AACTATATTT AGCAAGCGAT TTGACAAAAG TGGAAAATCC GCGTCCGCAG GATGAGGATG	2760
AAACCTTGGA AGTCCTTGAA GTGAGCTTAG AAGAAGCGAA AGAATTAATC CAATCAGGTC	2820
ATATCTGTGA TGCCAAGACA ATTATGGCTG TTCAGTATTG GGAGTTGCAG AAAAAATAGA	2880
GGAGGTCAGT ATGGGTAAAT CTTTATTAAC GGATGAAATG ATTGAAAGAG CTAATAGAGG	2940
CGAAAAAATT TCAGGTCCTC CTTTGCTAGA TGATAATGAG GAAACTAAGA TTTTACCAAC	3000
CTCTCTTCC CGTTTTGGTT ATGCCAATCC TAAGGATCAT GGTTTTAGCC AGGAAACCTT	3060
GAAGATTCAG GTCGAACCAT CTATTCATAA AAGCCGTCGT ATTGAAAATA CCAAGAGAAA	3120
TGTCTTCAAT TCTAAGTTGA ATAAAATCTT ATTTGCGGTC ATCTTCTCTT TGATTTTGCT	3180
TGTTTTAGCA ATGAACTTT TGTAATAGAA AAGGAATTGA AATGAAAATA GGAATTATTG	3240
CTGCTATGCC AGAAGAACTG GCTTATCTGG TCCAGCATTT AGATAATGCC CAGGAGCAAG	3300

1080

TTGTTTTTGG GAATACCTAT CATACAGGAA CCATTGCTTC TCATGAAGTC GTTCTTGTAG	3360
AAAGTGGAAT TGGAAGGTC ATGTCTGCTA TGAGTGTGGC GATTTTGGCT GATCATTTCC	3420
AGGTGGATGC CTTATTAAT ACGGGTTCAG CTGGGGCAGT AGCAGAAGGT ATCGCTGTTG	3480
GGGATGTCGT GATTGCTGAC AAATTAGCCT ATCATGACGT GGATGTCACA GCTTTTGGCT	3540
ATGCTTATGG ACAAATGGCG CAACAACCGC TTTATTTCTGA ATCAGACAAA ACCTTTGTTG	3600
CTCAATCCA AAAGAGTTTA TCTCAATTGG ACCAAAACCTG GCATCTTGGT TTGATTGCTA	3660
CAGGAGATAG TTTTGTGCA GGAAATGACA AGATAGAAGC GATTAAGTCC CATTTCCAG	3720
AAGTTTTAGC CGTGGAGATG GAGGGGGCAG CTATTGCTCA AGCAGCGCAT GCCCTCAATC	3780
TCCCAGTCTT AGTCATCCGA GCTATGAGTG ACAATGCCAA CCATGAAGCA AACATCTTTT	3840
TTGATGAGTT TATTATCGAA GCTGGACGTC GCTCTGCCCA AGTCTTGTG ACCTTTTGA	3900
AGGCTTTAGA TTAAGCGGAA ATTTGACAGT TTTTCTAGCT TATGATAAGA TTTAAGTAA	3960
GAAAAGCTAG AAAACGTTTC AGAGGATATT ATGAGTATTG AAATGACCGT CAGTGAGATT	4020
GCAGAGGTCT TAGGATTATC TCGCCAAGCA ATCAATAACC GTGTCAAAGA ATTACCAGAA	4080
GAAGACACAG ATAAAAATGA CAAG	4104

(2) INFORMATION FOR SEQ ID NO: 170:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8876 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 170:

CACGGATAGG CTCGGCTTTC ATCAGTCCTC AGGCTGATTT ACTAATAGCA ACTTTCCTCG	60
ACAAAGTCCA CAGCGATACG TnTGGGTATC AATCCTACGC TTACGCTGAT ACCTTTGCTG	120
GCAGGATTGG CAACGATAGA GCTTGATTGG CTTGGAGTTA CTATTGGGCA AGGATGGTAC	180
AAACCGTAAT CCATCCACTG CTTTCAACAG TTCCTTAAAA TCCCGATCCT TGTGTTGATA	240
GCCTTTCCTT TGAAAATAGA GGTGATAATG ACAGAGTTCA TGTCGGACAA TTTTCCTAAA	300
AACGTCCAAC CCCAGTTCCT GATAAACCTT GGGATTAAAA TCCAAATGCC CATCTTTGGG	360
GAAAAATCGC CCACCTGTCG AACGTAGACG CCTATTCCAC TGGACATGAT GGATAAAAGG	420
TCTGCCGAAG TCTTCTAGTG AAACCTGCTT GACGTAATCA GTCAGTTTCA TTTGGAGCTA	480
GGAGAGACAG ATTAACTTTT TCACGTTTCTG TATCAATTTT CTTAACCCAA ACGCTCACCA	540
AATCTCCAAC TGCCACCACT TGACTAGGGT GTTGGATAAA CTTGCGACTC ATATGGGAAA	600

1081

TATGGATGAG ACCGTCCTCA TGAATTCCGA TATCAACAAA AGCACCGAAA TCAACAACGT	660
TACGCACCAC TCCTTCTAGC TTTTGTCCAA CCACTAAGTC CTTGATATCT AGGACATCTT	720
GGCGAaCACA GGTGCGTCAA AGGAATCACG GAAATCTCGA CCTGGTTTGA GAAGATCTGC	780
AATGATATCT TTAAGAGTTT CTGGACCAAG GTCTAACTCT TCGGCCATTT CCTTGACTGA	840
AAGCGACTTG AGTTTGCTTT GGGCTTCTTC GTTTAGGTCT TTAATATCTA AACGTTTGAA	900
GAGTTCCCTA ACTGCAGTGT AATTCCTCTGG GTGAACCTCT GTATTATCAA GGATATTGCT	960
ACTTTCAGGG ATACGAAGGA AACCAGCAGC CTGCTCAAAG GCCTTGCGTC CCAGACGAGG	1020
AACCTTCTTG ATTTGGGCGC GTGAAGTGAT TTTTCCTTCT TCCTCGCGGT ATTTGACAAT	1080
ATTTTCAGAG ATAGTTTGTG TGAGTCCAGC TACGTGTGAA AGAAGAGCTG GGCTAGCTGT	1140
ATTGACATTG ACACCAACTT GGTAAACCAC TGTATCGACA ACAAAGTCCA GACTCTCAGA	1200
TAGTTTCTTC TGACTGACAT CGTGTGGTA TTGACCGACA CCAATTGACT TAGGATCGAT	1260
TTTGACCAAT TCCGCAAGAG GATCTTGCAA ACGACGGGCG ATAGAAATGG CAGAGCGTTT	1320
TTCAACGGTC AAGTCTGGAA ACTCCTGACG AGCAAGTTCTG CTGGCAGAAT AGACAGAAGC	1380
ACCACTTTCA TTAACGATAA CATAGCTGAC TTCAGGGAAA TCTTTCAGAA CTTCCGCTAC	1440
AAAAGCTTCA CTTTCAGGAC TGGCCGTTCC ATTTCCAATG GCAATAATCT CTACACCGTA	1500
TTGACCAATT AAATCTGCTA AATCTTTCTT GGCTTCTTCG ATTTGACGAG CTGATGCTGG	1560
TTTAACAGGA TAAATAACCT GAGTTGTCTAG CATTTTCTCT GTTGATCCA CGACAGCTAG	1620
CTTGGCACCT GTACGAAAGG CTGGGTCAAA TCCAAGAACC ACGCGCCCTT TCAGTGGAGC	1680
AACCAAGAGG AGATTGCGCA GATTGTCAGA AAAAAGTTGG ATAGCTCCTT CTTCAGCTTT	1740
CTCAGTTAAT TCTGTCCGAA TACGACGCTC GATAGCAGGC AAGACCTTTT TCTTAACGGA	1800
TTGCTGAACA ACTTCATCAA TATAAGCATT TTTACCTTG AAACGAGTAG CAAAGAAGGC	1860
AAGAATACGG TCCGTCGCAT GTTCAAAACC GATCTTCAAG ACACCAAGTT TCTCCCCACG	1920
ATTGAGAGCC AAGGTACGAT AGCCTTGCTA GTTCCAAC GTCTCTGAAA AATCATAATA	1980
AATCTGAAAA ACCTGCTTTT CATCAAGACT TTCATCCTTG GCTTGAGAAG TAAGTTTAGA	2040
GTGTCTCAGC ACTTCCTGAT AAGTCATAGA ACGCAAGGTC ACATCTTCCG ATAAGGCTTC	2100
GACCAAAATA TCAACTGCAC CGGTCAAGGC TTCCTTGCCA GTCGCAAATC CTTACAGAC	2160
GAACCTTTTCA GCTTCTTTCT CTAAGTCAAC TATATTCTGC AAAATCAAGC GAGCAAGAGG	2220
AAAGAGTCCA GCTTCACGGG CAATGGTTGC CTTGGTACGA CGCTTTTCTT TATAAGGAAG	2280
ATAGAGTTCT TCAACGCTG CTAATTTTTC GGCAACTAAG ATAGCTTCTT CCAATTCCTT	2340

1082

GGTCAACTTA CCTTGTTCTT GAATCTTAGC TAAGACAGCT TCCTTACGGT CATTGAGATT	2400
TGTCAGACTT TTATCCAAAT CAATAATAGC CTTAATCGCC ACCTCATCCA GACTACCACT	2460
CATGTCCTTG CGATAACGCG CGATAAAGGG AATAGTCGCC CCTTCAGCTG TCAAACCTAG	2520
AACGGTATCA ATTTGCTTTA ACGTCACTCC CAAATCCTGA GAGATTTTTT CATATTTTTT	2580
ATCCATAAAT CTATTATACC ACAAGCTAAA CGTTTCAAAT TAACTCGTAG AACATTTAAA	2640
AAATATGTAG GAAATAGATT TATATGCTAC AGCGCAATAA CTTGCACTTA AAGAGCATTG	2700
CCACCTTTTT TTAACCAAGC CATGATATCA AAAGTATTTA ATGGATCAGA CATAATAGCC	2760
AGTTCTGGAA GATGTTCTCG ACCTGGAATA ACACATTGAC TTTTCAAATT TTTATATGGA	2820
CGATTGACTA AAATTAATTT ATTAGAATAA GGAAGATTAT CCATCTTATT TAAAATTTCT	2880
TCAC TAGCTG AATCTTTATT ATCAAATTTA AAATAAAGAT TATTCOAATT TATGCGTTTT	2940
TTTCTTTTTT CCCACTTAGT TCGTGCTTCT TCAATACTAG AATAATGTAG AAAATGAATA	3000
TCTATATCTC CTAAGTGCCC CAAAGGATAA ACTTCATGAG TCCAGCTCGG TGAATAAGT	3060
TCCTCTTCGA AAACAAGTTC TTGTTCATA TAATAACGAA AATGCTTTGT AAGTTTATAA	3120
TAATCATCAG GAAGAATAAA TAAACCAACA AAAGGTGTTT TATATTGAAA ACCAAGCTGT	3180
TTATAAATTA ATCTCCAAC ACAATTATTA CTTATAATCG TAAAATCTAA TCTATCAAGC	3240
TCAAGAAAAG GGAAAATTC TTTCTCTGCA GCTATTAACT TATGATAAAC AATATCAGAA	3300
TCTAAATATT CACCGTCATT TTTTAACCAA GCACTAAAT TTCCCAATTC TTGAATATAT	3360
TGTTTTTTCG CTCTTCTAT ATCATAGTTT TCTAAGACGG CGCAATCTTT GATTCTATTT	3420
TCATAATTTT CTAATATGAT TTTGTAGGAG TCTTTTAGAG GTTTAGCATC TATAACAGGT	3480
TTATAGATAT ATGTCGGGAA ATTAATATAG GTTGCAGTTT TAGAGTGAAT ATAAAGTCTC	3540
CAAATAAGGT TGTTTATATC AAATTGATTT ATTTTTCGTA AAAGCTTACT ATTGAATAAT	3600
TTTCCAAATA ATGAGCGATA TTGTTTCTA ATTCGATGAT CTGTATCATC CATCTTTTGT	3660
AAAAC TTGAA CATTCGTAA ATTTTCTGTC AACCAATTAT CCCCCAAA AGGATAAAAG	3720
TAAAATACTC CATCAACCA ATCAGCAAAA TGACCAAGAA CAACATCAGA ATCGGATAAT	3780
TTTATCGCAT GATACATCTT TTCAAATGTC CAATCAAATA ATGAATCATT TGAAGATAGA	3840
AACGTAATAT AATCTCCTGT AATCATATCA GACAACCTAG CAAAAGAATT CTCATCTATA	3900
ATCTTAATAT TAAATGATAG ATTCATCTGT TGGCTAATGG AAGCTATCTC CTCTGTAGAT	3960
TGATTTACAA TAATAACTTC TATATCTTTT AATGTTTGTC TCTCCACTAT TGACAAAGAC	4020
TCTAATAAAC TATTTTATC TCCTTGATGT AACAAAACAA CACTAATGA GTAAGTCAGT	4080
TTGACTACCT CCCATAATTT TCTGATAATG ATTTTCTTTT TATTTAATTA TAGACAATT	4140

1083

ATGATATATA TCAGGTAATA TCAAGCTATA TTATCTCTTA GCTACTCAAT TTGAAATTTT	4200
AACTTTTCCC TTTTCCGCAA AATAATAGTA TAATAGAGGT AGAATCTAGA ATCGAGGTAC	4260
ACCTATGGCT GTCAAATTTA CAAAACGAGA CGACTTGGAC AAGATGTTTG AAGAGTTTGC	4320
TAAACTCCCT GATTGAAAC AAGTTACTTT CCCTGATGAC AAAGAGAAAA AAGTCAAAGC	4380
AGAAAAGAAA AACTAGATGA CTGCTTTTCA ACAACTCCCA TCTAGTGTAC TTCAAACGTG	4440
AGCCATTTTT CTCTCCATTA TCATTGAAGC CCTTCCCTTC GTTCTGATAG GAAGCATTGT	4500
CTCAGGGCTG ATTGAAGTTT ATATCACACC TGACAAGGT TATCATTTTC TCCCTCGAAA	4560
TCGTGGGGG AGAATCTTTT TTGGGACCTT TGTCGGTATA CTTTCCCTT CTTGTGAATG	4620
TGGAATCGTC CCCATCATCA ATCGTTTCTT GGAAAAAAG GTTCCAAGTT ACACGGCCGT	4680
TCCTTTTCTT GTGACAGCAC CTGTTATCAA TCCCATTTGT CTTTTGCGA CCTATTCTGC	4740
CTTTGGCAAC TCCTTCCATG TCGCCCTATT ACGAGCTCTG GGTTCATTTC TTGTGGCTGT	4800
AATACTAGGA ATTTTCTAG GATTTTCTG GCAAGAACCG ATTCAGAAAG AAAATCGTCT	4860
GGCTTGTCAT GAGCATGATT TTTCTTACTT GAGTTCGTCA AAAAAAGTTT TTCAAGTCTT	4920
TGTGCAGGCC ATTGATGAAT TTTTGATAC GGGGCGTTAT TTGGTATTTG GCTGCCTCTT	4980
TGCTTCTATA ATACAGGTCT ACGTTCGAC TCGGATTCTG ACCTCTATCA GTGCGACCCC	5040
TCTTTTGCC ATCCTGCTCT TGATGATTTT AGCCTTCTT CTTTCGCTCT GTAGTGAGGC	5100
GGATGCCTTT ATAGGTGCTT CTCTTCTCTC GAGTTTCGGT TTGGCACCAG TTCTGGCCTT	5160
TCTCGTCATT GGTCCAATGC TGGATATCAA AAATATTCTC ATGATGAAAA ATTACTTGAA	5220
AGCACGATTT ATCAGTCACT TCATAACAAT TGTAACCTCT GTCGTCTTAG TCTATTCTCT	5280
CTTGATTGGA GTTATCCTAT GATTCGATTT TTAGTTTCTAG CTGGCTATTT TGAAGTACT	5340
ATTTACCTCC ATCTGTCGGG CAAACTAAAC CAGTACATCA ACATGCACCTA TTCCTATCTG	5400
GCCTATATCT CCATGGTGCT TTCTTTTATC TTGGCTATCG TTCAATTGTA TATCTGGATG	5460
AAGCAAGTCA AAACCCACAG TCATCTGAAC AGCCGATTAG CCAAGATAAC GAGTATTTCT	5520
CTTCTGGCTA TTCCACTTGT CATCGGCTTA ACTTTCCCAA CTGTTAGCTT GGATTCTCAG	5580
ACTGTTTCTG CTAAAGGTTA TCATTTCCCC CTATCGGAAG GAACGGATCT AGCCATTCAG	5640
ACAAGCGAAG GGACGACAAG CCAATATTTG AAACCAGATA CCAGTTCTTA TTTTCAAAA	5700
TCAGCCTATG AAAAGGAAAT GCGAACGGCG GCGGATAAAT ACTTATCCCA AGATAGTATT	5760
CAGATCACTA ATGAAAACCTA TATGGAAGTC ATGGAGGCTA TCTACGACTA TCCAGATGAG	5820
TTTGAGGGCA AGACAATCCA GTTACAGGC TTGTCTATA ACGACCCAG TCATGCCAAT	5880

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AGTCAATTTT	TGTTCCGATT	CGGCATTATC	CACTGTATCG	CAGATTC	TGG	TGTCTATGGA	5940
TTGCTGACCA	AGGGCAATAC	CCGGCAGTAT	GAAAACAACA	CTTGGATAAC	AGCCAAAGGA		6000
AAACTGGTCA	ATCACTACCA	TAAAGAACTC	AAACAAAACC	TTCCAACCTT	GGAAATCGAC		6060
AGCTTTACCA	AAGTCGATAA	ACCAGAAAAT	CCCTATGTAT	ATAGAGCTTT	TTAAGAAAAT		6120
CAAGATAAAA	ACGAACAAGT	TCTCTTCTGA	ATAACAGAAA	AAGAGCCTGT	TCGTTTTTTG		6180
TTATATGAAA	ATTAGTGACT	TGTAGATTTT	CATCTTATAC	CATTCCCAGC	AATACAAGTA		6240
GCTCATAGAA	AATAAGCGAG	CCACTCATTC	ATTAGACTAG	CGATTTCTTT	AGGTGCTTGA		6300
GTATAAAGCT	CATGGCCAAA	GTTTCTCTAA	AAAATAGTAT	CAAAATAGTC	TGGCAATTCT		6360
TTTAGGGCTT	CCTCTCTCCA	TGTAGCTTCA	TTAGGATAGC	GAGGACTAAT	AAACAAGGTA		6420
TCTCCCCTT	CTCTCTTAAA	AGCTTGATTT	TTTCTCCGTA	GcGGAGTATC	GCTTCTATAT		6480
TTTCATAATT	TATAGCCAAC	TCATATCTAT	TATACTCAAC	ATTCCAGTGA	TAAGACTGTC		6540
TTACAGCTTT	CTCCATATTT	TCTGACCAAT	GCTTTGCTTC	AGATTTTCTT	TTAGAAGTAA		6600
GAACATCTAA	GTCCGAAACA	ATTTGAGATT	TGATATAATT	TTTAGTTTCC	TCTAACTCTG		6660
TATCCAAAGG	TAAAATCTTA	TCTAAATCTA	GATAGCCACC	ATCCAAAAGA	ATCAGTTTCT		6720
TTACTTCTTC	AAATTCCGAT	GCGAAATAAC	GAGCTAAATC	TCCTCCAAGA	GAATGGCCTA		6780
TCAGACAGAT	AGATTCTTCC	TCTACAATTT	CATTTTTTAA	CCATGATTTT	AATTCTGTTT		6840
CATCTCGAAG	ATGCTTTTCA	TATGGATTTA	GAAAATAGAC	CTGGGAATCT	AGTTCTTCAA		6900
GAAAATCCTT	GCTATGATAG	GCATTGCTTC	CCAAACCGCC	AATAAAATAT	TTTTTCATTCT		6960
TCTACTTAAT	ACTATGCTTA	TTTCTCTTTT	GTTCAAAGAT	AGTTGTGATA	ATCTGACGCA		7020
ATTCTTCGCG	TTTTTTTTCT	GGAATCTCAC	CACCTGTTTG	AGCTACAGCG	TAGAGTTCAG		7080
GGTATTCAAT	TGAAATGCGT	TTAATCGTAC	GTGTTGTAGC	ATGTTTTCTG	ACAAAAAACG		7140
GGATTCGCTT	AATCAAGTCT	TGTGGGACTA	GCGCCAGAAT	CTTCTCAGTA	GTTTCTTTGT		7200
CACATAATAT	AGACATTGTA	AGCCTTTTCT	TAATCATTTT	CTGTTCTTTT	TCTGTAAAAT		7260
CTTTTAATTC	CATTCGATTA	GTCCTCCTAT	TTTCTCTAAG	TTAAATTATG	TACTAATACA		7320
GATGAAACTA	CAAAGAATAA	ACTTTAAGAA	ATCTTCTCAC	TGATAAGATT	TTAGCATTAG		7380
ACTTCCTGCG	AAACAAAATA	TGGTATAGTA	GTTCTATGAA	TTATGAAGCA	AGTAAACAAC		7440
TAAGTATGTC	ACGATTTAAA	CGTCTTGTG	GTGTTTACG	CACGACTTTT	GAAGAGATAT		7500
TAGCTGTATT	AAAAACAGCT	TATCAACTTA	AACACGCAAA	AGGTGGACGA	AAACCTAAAT		7560
TAAGCCTAGA	AGACCTTCTT	ATGGCCACTC	TTCAATATGT	GCGAGAATAC	CGCACTTATG		7620
AAGAAATTGC	GGCTGATTTT	GGTATTCACG	AAAGCAACTT	AATCCGTCGG	AGCCAATGGG		7680

1085

TTTAAGTAAC TCTTGTTC	AGTGGTGTTA CGATTTCAAG	AACTCCTCTC AGTTCTGAGG	7740
ACACGGTAAT GATTGATAGC	CATTCCTATC AATATCGTAT	CTTTGGACAT AGCCAATAAA	7800
TGTTTCATTT TTGCGTGGTT	TCTGGCTATT AACGATTGAA	ATAACCCACC AACTTATCAA	7860
AAATAGAAAT AAAAATCCTA	AGATTACTGT CATATCATAA	CACTATTAAA GTTTAACCCA	7920
CTTATCATT	TCCATGATAA AAGGCTTAGC	CAGTCCCTCG CCTGTATAAT	CCGCATACTT 7980
GGTGCCCAA	TACTTGTAGC AATCTTCCTT	ACTAGCAAAT TTAATCGCTT	GGTAGGGCTC 8040
TTCGAAAGTC AATTTCTCTA	CAAATAAGAA ACCGTCATCA	GCAGGTACTA AGACCCCAAC	8100
GTGGCCTACA AACAGATACT	CGCCATCCAA ATTGTCGTGC	AAGACTACAG ACAGCATTTCG	8160
AGCTTTTTC	TTGAATTGAA ATGTGAGAA	GAATGCTTCC ATCTTTTCAG	CGTGAACCTT 8220
GACATCTGTA GTTGACTCAG	TTGGAAGTCT CGAAATAGA	ATATCAAACCT CTTCTTATC	8280
TTGTGAATCA AAGACCTTTC	CTTTATCAAT CGCATCATT	TCTAGGAAAA GCAACTGGTC	8340
ATTCTTTTC	AGCTTTGGAA TGGTGACTGA	ATTTTTCAAA AGACAATAAC	TATTGATACG 8400
GCAGTTGGTC CCAACAAAAT	CGCCCTTCTT TTGATTCCAG	AGATGACTGA TTTTCTCAAC	8460
ATCGTATTTC	GTGTGAGTAA AGGAAGTGAA	ATCTCCTGAT AAGCCAGTTG	AGCCGACAAT 8520
GGTATTATAG TCATTAACGA	GATTAAAAAA TGCATCAACA	CTATTGGAT CCAAGTGAGC	8580
TGATAAGAGA GATTTGACCT	CTTCTGTACT TACCTGGTTG	TTTAGGTTGG TGTATGAAGC	8640
TTTCCATGGA ACTTTCGCTG	AACTGCTTTG CCTTTGATTC	GTCCCTCAG AAGTAGCATG	8700
TTGTTGTTGA CAAGCAGCCA	AGCCTAAAAA CAAGGCTGAA	CAGATTCCCTA ATGTGGCTAA	8760
TTTCTTTGAT TTCTTCATTT	CTTCTCCTA AATGTCTTGG	ATTAAAGTTT CTTTAACTAT	8820
TGCTTTACAG ATATTGATTA	CTTCTCATT TAATGTGTTC	ATCGTCTTTC CTCCGG	8876

(2) INFORMATION FOR SEQ ID NO: 171:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14736 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 171:

CGCAAACCTT CGCGGTCGGA	AGGTAGTTTT ATGACACGAT	TTGAGATACG AGATGATTTT	60
TATCTCGATG GAAATCATT	TAAGATTTTA TCTGGTGCCA	TTCATTATTT TAGGGTTCCT	120
CCAGAGGATT GGTATCATTC	GCTCTATAAC TTGAAGGCTC	TTGGTTTTAA TACGGTAGAG	180

1086

ACTTATGTTG CTTGGAATTT ACACGAGCCT TGTGAAGGTG AGTTTCATTT TGAAGGTGAT	240
CTGGATTTAG AGAAATTTCT CCAAATAGCG CAGGATTTGG GTCTCTACGC AATGTGCGCT	300
CCGTCTCCAT TTATCTGTGC GGAATGGGAA TTCGGTGGCT TACCAGCTTG GCTCTTGACC	360
AAGAACATGC GAATTCGCTC ATCCGACCCA GCATATATCG AGGCAGTTGG TCGCTACTAT	420
GATCAGTTAT TGCCAAGACT GGTGCCTCGT TTGTTGGACA ATGGTGGCAA TATTCTCATG	480
ATGCAGTTG AAAATGAGTA TGGTTCTTAC GGAGAAGATA AGGCTTACCT GAGAGCGATT	540
CGACAGCTAA TGGAAGAGTG TGGCGTAACC TGTCCCCTCT TTACATCAGA TGGTCCATGG	600
CGAGCTACTC TGAAAGCTGG AACCTTAATT GAAGAGGACC TCTTTGTAAC AGGAAACTTT	660
GGTTCCTAAG CACCTTACAA CTTTTCGCAG ATGCAGGAAT TCTTTGATGA ACATGGTAAG	720
AAATGGCCAC TCATGTGTAT GGAGTTCTGG GATGGTTGGT TCAATCGCTG GAAAGAACCG	780
ATTATCACAC GGGATCCTAA GGAATTGGCA GATGCAGTTC GAGAGGTTT GGAACAAGGC	840
TCTATCAATC TTTACATGTT CCACGGTGGT ACAAACCTTG GTTTCATGAA TGGTTGCTCA	900
GCTCGAGGAA CTTTGGACCT GCCACAAGTT ACGTCTTATG ATTACGATGC CCTTCTGGAT	960
GAAGAAGGAA ATCCAACATGC TAAATATCTT GCAGTCAAGA AGATGATGGC AACACATTTT	1020
TCAGAGTATC CGCAGTTGGA ACCACTCTAC AAAGAGAGTA TGGAGTTGGA TGCTATTCCA	1080
CTAGTTGAAA AAGTTTCTTT GTTTGAAACC TTAGATAGCT TGTCAAGTCC TGTAGAAAGT	1140
CTCTATCCTC AAAAGATGGA GGAGCTGGGA CAAAGTTATG GCTACCTACT TTATCGAACA	1200
GAAACAAACT GGGATGCAGA AGAAGAAAGA CTTCGTATCA TTGATGGTCG AGATAGGGCC	1260
CAGCTGTATG TCGATGGTCA GTGGGTAAA ACTCAATATC AGACAGAGAT TGGGGAAGAT	1320
ATTTTATATC AAGGTAAAA GAAAGGGCTA TCTAGGTTAG ATATCTTGAT AGAAAATATG	1380
GGGCGTGTC ACTATGGGCA TAAGTTCTTA GCGGATACGC AACGTAAGGG AATTCGGACA	1440
GGGTCTGTA AGGATCTGCA TTTCTTACTA AACTGGAAAC ACTATCCACT CCCACTAGAC	1500
AATCCTGAGA AAATTGATTT TTCAAAAGGA TGGACTCAAG GACAACCAGC CTTTACGCT	1560
TATGACTTTA CAGTCGAAGA GCCAAAAGAT ACTTACCTAG ACTTGTCTGA GTTTGGTAAG	1620
GGGGTTGCCT TTGTCAATGG GCAGAATCTA GGACGTTTTT GGAACGTTGG CCCAACTCTC	1680
TCACTTTATA TCCCTCATAG CTATCTCAAG GAAGGTGCCA ACCGCATCAT TATCTTTGAA	1740
ACAGAAGGTC AATATAAAGA AGAGATTCAT TTAACCTGTA AACCTACACT AAAACATATA	1800
AAGGGGAAA ACTTATGACA ATTGTAGGAT GCCGTATTGA TGGACGTTTG ATCCACGGAC	1860
AAGTAGCCAA TCTTTGGGCT GGAAAACTAA ATGTTTCACG CATTATGGTT GTAGACGACG	1920
AAGTTGTCAA CAACGATATT GAAAAGAGTG GTTTGAAACT TGCGACACCA CCAGGTGTGA	1980

1087

AATTGAGTAT TTTGCCAGTT GAGAAAGCTG CAGCCAATAT TCTTGGTGGC AAATACGATA	2040
GCCAACGTCT CTTTATCGTG GCTCGTAAAC CAGACCGCTT CCTTGGTTTG GTAGAAGCAG	2100
GTGTACCACT TGAAACCCCTT AATGTTGGGA ATATGTCCTCA AACACCAGAA ACTCGTTCTA	2160
TTACACGTTC TATCAACGTA GTAGACAAGG ATGTGGAAGA CTTCACAAA CTGGCAGAAA	2220
AAGGTGTTAA ACTTACTGCT CAGATGGTTC CAAATGATCC AATTTCAGAC TTTTGTAGCT	2280
TATTAATAA GGAAAAAAT TTTTAGGAGG TCATTGTTAT GATACAATGG TGGCAAATTT	2340
TACTTCTCAC TTTGTACTCA GCTTATCAAA TCTGTGATGA GTTGACGATC GTTTCATCTG	2400
CAGGTCCCC TGTATTTGCT GGTTCATTA CTGGTTTAAT CATGGGAGAT GTGACTACTG	2460
GTTTACTTAT CGGTGGTAAC TTGCAACTGT TCGTCTTGG GGTGGTACC TTCGGTGGTG	2520
CTTCTCGTAT CGACGCAACT TCTGGTGGG TTCTTGGCAG ACCTTCTCTG TTTCAACAAGG	2580
AATTGATGCA CCGCTTGCCA TTACTACAAT CGCTGTACCA GTAGCAGCTC TCTTGACTTA	2640
CTTCGACGTT CTGGGTCGTA TGACTACTAC CTCTTCGCT CACCGTGTGG ATGCTGCAAT	2700
CGAACGCTTT GACTATAAAG GTATTGAACG CAACTACTTG CTGGTGC GA TTCCGTGGGC	2760
TCTATCTCGT GCCCTTCCAG TCTTCTTGC CCTTGCTTTT GGTGGTGCCT TTGTACAATC	2820
AGTAGTAGAC TTCGTTGAAG CCTACAAATG GGTGCGAGAT GGCTTGACAC TTGCAGGACG	2880
TATGCTTCCA GGTCTGGAT TTGCAATCTT GCTTCGTAC CTTCAGTTA AACGTAACCT	2940
TCACTACCTT GCTATGGGAT TTGGTTTGAC AGCTATGTTG ACTGTCTTT ACTCATATGT	3000
AACAGGTCTT GGTGGCGCTG TTGCTGGTAT CGTAGGTACT CTTCCTGCTG AAGTTGCTGA	3060
AAAAATTGGT TTCGTGAACA ACTTCAAAGG TTTGTCTATG ATTGGTATTT CTATCGTAGG	3120
TATTTTCCTT GCAGTGCTTC ACTTCAAAA TAGCCAAAA GTAGCTGTAG CAGCACCTTC	3180
TACACCATCA GAAAGTGGG AAATCGAAGA TGACGAATTC TAATTACAAA CTTACAAAAG	3240
AAGATTTTAA TCAAATCAAC AAACGTAGCT TGTTTACTTT CCAATTAGGT TGGAACTACG	3300
AACGTATGCA AGCTTCTGGT TACCTTTACA TGATCTTGCC TCAGTTGCGT AAAATGTATG	3360
GTGATGGAAC TCCTGAATTG AAAGAAATGA TGAAAGTTCA TACTCAATTC TTCAATACTT	3420
CACCATTCCT CCATACCATT ATCGCTGGTT TTGACCTTGC CATGGAAGAA AAAGATGGTG	3480
TAGGTTCAAA AGACGCCGTT AACGGTATCA AGACAGGTTT GATGGGACCA TTCGCTCCTC	3540
TTGGGGATAC AATCTTGGT TCACTTGTAC CTGCTATCAT GGGGTCAGTC GCAGCAACTA	3600
TGGCTATCGC TGGCCAACCT TGGGGGATCT TCCTTTGGAT TGCAGTTGCA GTAGCGTATG	3660
ACATCTTCCG TTGGAACAG TTGGAATTTG CTTACAAAGA AGGGGTTAAC CTTATCAACA	3720

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ACATGCAAAG TACCTTGACA GCTTTGATTG ACGCTGCATC TGTACTTGGT GTCTTCATGA	3780
TGGGTGCTCT TGTAGCAACA GTGATTAAC TTTGAAATTC TTACAAGTTG CCAATCGGTG	3840
AAAAGATTGAT TGATTTCCTAA GACATCTTGA ACCAAATCTT CCCACGTTTG CTTCAGCAA	3900
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TCGGTATTAT TATCGTACTT GCTTTGGCTC TTTCTGCCCT TGGTCACTTT GCACTTGGAA	4020
TGTAATTCCCT TATGACTAAA TCATTAATTT TGGTGAGCCA TGGTCGCTTC TGTGAGGAGC	4080
TTAGAGGTAG CACAGAAATG ATTATGGGCC CACAAGACAA CATTTACACA GTAGCTCTTC	4140
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ATGATTTCCCT AGTCTTTGCG GATCTTCTCG GTGGGACACC TTGTAATGTG GTGAGTCGCT	4260
TGATCATGGA AGGTCGTGAT ATTGACCTTT ACGCAGGGAT GAATCTTCCA ATGGTGATTG	4320
AATTTATCAA TGCAGGCCTT ACAGGCGCAG ATGCGGACTA CAAGAGCCGT GCTGCAGAAA	4380
GCATTGTGAA AGTTAATGAC CTGTTAGCGG GCTTCGATGA TGACGAAGAT GAATAATACT	4440
CTTCGAAAAT CTCTTCAAAC TACGTCAACG TCGCCTTGCC GTAGgTATAT GTTACTGACT	4500
TCGTCAGTCT TATCCGGCAA CCTCAAAACG GTGTTTTGAG CTGACTTCGT CAGTCTTATC	4560
CGGCAACCTC AAAGCAGTGC TTTGAGCAGC CTGCGGCTAG TTTCTACAG ATTTTAGTTG	4620
GAACTCGATT CAATTCATGT GACAACGTGA AAATCGTTAG AGCATTTTAT ATAGAATATA	4680
CATGGGAATG TAGCTTACTC CCATTTCCAT ATTTAATAGA AAAAGAGGAA CTCAATGCTA	4740
CATTATACAA AAGAAGACTT GCTCGAATTG GGTGCAGAAA TCACTACGCG TGAATCTAC	4800
CAACAGCCTG ATGTATGGAG AGAAGCTTTT GAATTTTATC AAGCAAAACG TGAAGAAAT	4860
GCAGCCTTCC TACAAGAAAT CGCTGATAAA CATGACTATA TTAAGGTTAT CTTGACAGGT	4920
GCTGGGACTT CTGCTTATGT GGGAGATACC TTGCTACCTT ATTTTAAGGA AGTCTATGAC	4980
GAACGCAAAAT GGAATTTCAA TGCTATTGCG ACAACAGATA TCGTTGCCAA TCCAGCAACC	5040
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GAAAGTTTGG CGACTGTTGA TTTGGCCAAA TCCTTGGTGG ATGAGCTTTA TCAAGTGACG	5160
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TCTATGATGT TGACAACTCT CTTGGTCTTT GATCCTACAG AATTTGCTGT TAAGTCTGAA	5340
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GAGCTCGTTG ATTTAGACTT TAACCGTGTC ATCTATCTAG GCGCTGGTCC TTTCTTTGGA	5460
CTTGCTCATG AAGCTCAGCT CAAGATTTTG GAATTAACGT CTGGTCAAGT TGCACCATG	5520

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TATGAAAGCC CAGTTGGCTT CCGTCACGGT CCAAAATCTC TTATCAACGA CAATACAGTT	5580
GTTTGGGTCT TTGGTACAAC GACAGACTAC ACTCGTAAGT ACGACTTGGA CTTGGTTCGT	5640
GAAGTTGCTG GTGACCAGAT TGCTCGTCGT GTTGTGCTTT TGAGTGATCA AGCTTTTGGT	5700
CTTGAAAATG TCAAAGAAGT GGCCCTTGGT TGTGGCGGTG TCTTGAATGA TATTTACCGT	5760
GTCTTCCCTT ACATCGTTTA TGCCCAACTC TTTGCTTTAT TGACTTCACT CAAGGTAGAA	5820
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ATTACGAAT ATCAAAAGTA AGACAGTGT TATGAATTCT TGACAAGAGG ATTTGTAAAT	5940
TATCAGATAA ACCATAGATT GTCAGTACGC TTTCTATGGT TTGTTTGCTT GAGAGAAATA	6000
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GGATGTCTTG GCCTATCGAT TTGAGACAGA CGGTGGCTAC CAACTTGAGG TTATGACTTA	6120
TGGTGCAGCT ATCTTGCGCT ATGTCGCACC TGACAAGGCT GGAAATTTTG CCAATGTTAT	6180
CTTGGGATTT GATGACTTTG ATAGTTATGT AGGCAATAGT CCCAAGCATG GAGCAAGTGT	6240
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TGCAGGCCAT GACAATGCTG GATTCCTTTA TGACCAAAAT TCAGGTCGCT TCCTGCTTTT	6840
CAAGACAGAA GTCCTTGCT TTGTGGTCTA CACAGCAAAC TTTGTGGATG AAAGTGCAT	6900
CATAGGAGGT CAGCCAATGC TACAGCACA TGGGATTGCT CTTGAAGCGC AAGCTTTACC	6960
AGATGCCATT CACAGTGACC TTAAAGGCCA AGTCATTCTT AAAGCTGGTC AAACCTTCAC	7020
CAGTAAGACA CGTTATGAAC TTGTTGTGAA GTAAAAGAGT CATTGCGCCT ACTTTGGGA	7080
GCTAGGAATA GGTACGCAGA GACAAATAGT AGGAAAATAT GATATAACTA AGCGTTGAAA	7140
GCTATCTGTT AATATAATAT TCAAACACA ATAAGGAGTA AGAAAGAAAC GAAGAAAAT	7200
GTATTTGCTA GTGCCTTGGC TTTGACCTTG GCTGGAGCAG TTTTGACAAA TGATGTTTTT	7260

	1090	
GCGAACGACA GACTTGTGGC AACACAAACT ACTGATGGTA AAAATGAAAA TGTATTGACC	7320	
TCAGAGGTGC TAAACCTTC TAGTGGCAAT GTTTTGGTTG GAATCAAAGG AGAATTTGTG	7380	
GCTCCTCATC AACAACTAT TTTGGATGCC ATCAATGCTA TCTGTAAAGA AGCGGCTGAC	7440	
GAAGGTTTGG TAGATAAGTA TGTCCCTATC AAATGATCAA CTGACCTAGA AAAGCAGCT	7500	
TTTGCCAGAG CTACAGAAGC ATCTATAACC ATGGATCATA CCCGTCTTTC TAGCAAAGAT	7560	
CTTTGGAGTG CCTTCCAAC TTCTAATAGT ATAATGGGAG AAAATTTGGC ATGGAATCAT	7620	
GACGGTTTTC TAAAAGCTAT TGAACAATGG CGTGTGAAA AAGCAGATTA TGTGGAGAAA	7680	
AAAATAGTGG TTCAGACAAC GGGAAATCTG GTCACATGA GTCGCTAATT AACCTAAAT	7740	
TTACACACAT GGGGATGGCA GCTTTTAAAA ATCCTAACAA TCAATACAAA GCTATTACAA	7800	
TTGTCTAAAC TCTAGGTGAT GATGCTTCTT CAGAGGAATT GGCTGGTAGA TATGGTTCTG	7860	
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TTTCTGGTAG CTGGTATTAC TTGAGCAATT CAGGTGCTAT GTTTACAGGC TGGGGAACAG	8160	
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TGGCCTCTTT TGATTATATA AGATTGGATT CTTGTGCGCT CAATTCAGA CTTTCTATT	8520	
GTAAGCTAAT ATTTTATAGC CCATTAAAAG CATAAGCGGT AATCTAATTT AAAAAATGCT	8580	
GTAATTAGTC TGAAGTCCAC ACTTACTTGT TGAGATGTTA TCTCTGTTT TTATCGTTA	8640	
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TATCGATTTA TTGTATAATG ATAAGTAAT GTTGAAAAGT ACTCAGAAAA TTCCATACTA	8760	
TATTATTTTT ATGTTTATAC TTTTATGCTA TAAAATATAG ATTGATATAA AGAATATAGA	8820	
AAAAGCGAGG TTAATATGAG CCGAAAAAGC ATTGGTGAGA AACGCCATAG TTTCTCGATG	8880	
AGAAAGTTGT CAGTGGGATT GGTATCAGTT ACTGTATCTA GTTTCCTTTT GATGAGTCAA	8940	
GGGATTCAAT CGGTATCGGC CGATAATATG GAAAGTCCAA TTCATTATAA GTATATGACC	9000	
GAGGGTAAAT TGACAGACGA GGAAAAATCC TTGCTGGTAG AGGCCCTTCC ACAACTGGCT	9060	

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GAAGAATCAG ATGATACTTA TTA CT TGGTT TATAGATCTC AACAGTTTTT ACCGAATACA	9120
GGTTTTAACC CAACTGTTGG TACTTTCCTT TTTACTGCAG GATTGAGCTT GTTAGTTTTA	9180
TTGGTTTCTA AAAGGAAAAA TGGAAAGAAA CGACTTGTTT ATTTTCTGCT GTTGACTAGC	9240
ATGGGAGTTC AATTGTTGCC GGCCAGTGCT TTTGGGTTGA CCAGCCAGAT TTTATCTGCC	9300
TATAATAGTC AGCTTCTTAT CGGAGTCGGG GAACATTTAC CAGAGCCTCT GAAAATCGAA	9360
GGTTATCAAT ATATTGGTTA TATCAAACT AAGAAACAGG ATAATACAGA GCTTTC AAGG	9420
ACAGTTGATG GGAAATACTC TGCTCAAAGA GATAGTCAAC CAACTCTAC AAAAACATCA	9480
GATGTAGTTC ATTCAGCTGA TTTAGAATGG AACCAAGGAC AGGGGAAGGT TAGTTTACAA	9540
GGTGAAGCAT CAGGGGATGA TGGACTTTC AAAAAATCTT CTATAGCAGC AGACAATCTA	9600
TCTTCTAATG ATTCATTCGC AAGTCAAGTT GAGCAGAATC CGGATCACAA AGGAGAATCT	9660
GTAGTTCGAC CAACAGTGCC AGAACAAGGA AATCCTGTGT CTGCTACAAC GGTGCAGAGT	9720
GCGGAAGAGG AAGTATTGGC GACGACAAAT GATCGACCAG AGTATAAACT TCCATTGGAA	9780
ACCAAAGGCA CGCAAGAACC CGGTCATGAG GGTGAAGCCG CAGTCCGTGA AGACTTACCA	9840
GTCTACACTA AGCCACTAGA AACCAAAGGT ACACAAGGAC CCGGACATGA AGGTGAAGCT	9900
GCAGTTCGCG AGGAAGAACC AGCTTACACA GAACCGTTAG CAACGAAAGG CACGCAAGAG	9960
CCAGGTCATG AGGGCAAAGC TACAGTCCGC GAAGAGACTC TAGAGTACAC GGAACCGGTA	10020
GCGACAAAAG GCACACAAGA ACCCGAACAT GAGGGCGAAG CCGCAGTAGA AGAAGA ACTT	10080
CCGGCTTTAG AGGTCACTAC ACGAAATAGA ACGGAAATCC AGAATATTCC TTATACAACA	10140
GAAGAAATTC AGGATCCAAC ACTTCTGAAA AATCGTCGTA AGATTGAACG ACAAGGGCAA	10200
GCAGGGACAC GTACAATTCA ATATGAAGAC TACATCGTAA ATGGTAATGT CGTAGAACT	10260
AAAGAAGTGT CACGAAGTGA AGTAGCTCCG GTCAACGAAG TCGTTAAAGT AGGAACACTT	10320
GTGAAAGTTA AACCTACAGT AGAAATTACA AACTTAACAA AAGTTGAGAA CAAAAATCT	10380
ATAACTGTAA GTTATAACTT AATAGACACT ACCTCAGCAT ATGTTTCTGC AAAAACGCAA	10440
GTTTTCATG GAGACAAGCT AGTTAAAGAG GTGGATATAG AAAATCCTGC CAAAGAGCAA	10500
GTAATATCAG GTTTAGATTA CTACACACCG TATACAGTTA AAACACACCT AACTTATAAT	10560
TTGGGTGAAA ATAATGAGGA AAATACTGAA ACATCAACTC AAGATTTCCA ATTAGAGTAT	10620
AAGAAAATAG AGATTAAAGA TATTGATTCA GTAGAATTAT ACGGTAAAGA AATGATCGT	10680
TATCGTAGAT ATTTAAGTCT AAGTGAAGCG CCGACTGATA CGGCTAAATA CTTTGTA AAA	10740
GTGAAATCAG ATCGCTTCAA AGAAATGTAC CTACCTGTAA AATCTATTAC AGAAAATACG	10800

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GATGGAACGT ATAAAGTGAC GGTAGCCGTT GATCAACTTG TCGAAGAAGG TACAGACGGT	10860
TACAAAGATG ATTACACATT TACTGTAGCT AAATCTAAAG CAGAGCAACC AGGAGTTTAC	10920
ACATCCTTTA AACAGCTGGT AACAGCCATG CAAAGCAATC TGTCTGGTGT CTATACATTG	10980
GCTTCAGATA TGACCGCAGA TGAGGTGAGC TTAGGCGATA AGCAGACAAG TTATCTCACA	11040
GGTGCATTTA CAGGGAGCTT GATCGGTTCT GATGGAACAA AATCGTATGC CATTATATGAT	11100
TTGAAGAAAC CATTATTTGA TACATTAAAT GGTGCTACAG TTAGAGATTT GGATATTAAA	11160
ACTGTTTCTG CTGATAGTAA AGAAAATGTC GCAGCGCTGG CGAAGGCAGC GAATAGCGCG	11220
AATATTAATA ATGTTGCAGT AGAAGGAAAA ATCTCAGGTG CGAAATCTGT TGCGGGATTA	11280
GTAGCGAGCG CAACAAATAC AGTGATAGAA AACAGCTCGT TTACAGGGAA ACTTATCGCA	11340
AATCACCAGG ACAGTAATAA AAATGATACT GGAGGAATAG TAGGTAATAT AACAGGAAAT	11400
AGTTCGAGAG TTAATAAAGT TAGGGTAGAT GCCTTAATCT CTACTAATGC ACGCAATAAT	11460
AACCAACAG CTGGAGGGAT AGTAGGTAGA TTAGAAAATG GTGCATTGAT ATCTAATTCTG	11520
GTTGCTACTG GAGAAATACG AAATGGTCAA GGATATTCTA GAGTCGGAGG AATAGTAGGA	11580
TCTACGTGGC AAAACGGTCG AGTAAATAAT GTTGTGAGTA ACGTAGATGT TGGAGATGGT	11640
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GTTTCAGACT ATACAGCGAT AACGAATAAC GTACTAAGCG ACTTGCAAAA TGTAACACTT	12240
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TTAGCGATGG ATAAATCAAT CAATACTACA GGAGACGGTG TAGTTGAATA CGTAAGTGAG	12420
AAAATCAAAA ATAACAAAGA AGCATTTATG CTAGGTCTTA CTTATATGAA CCGTTGGTAC	12480
GATATTAATT ATGGTAAAT GAATACAAAA GATTTATCTA CGTACAAGTT TGACTTTAAC	12540
GGAAATAATG AGACTTCAAC GTTGATACT ATTGTCGCAT TAGGAAATAG TGGACTAGAT	12600

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AACCTGAGAG CTTCAAATAC TGTAGGTTTA TATGCGAATA AACTTGCATC GGTAAGGA	12660
GAAGATTGAG TCTTTGACTT CGTAGAAGCG TATAGAAAAC TGTCTTACC AAACAAAACA	12720
AATAACGAGT GGTTTAAAGA AAATACAAAG GCATATATAG TCGAAATGAA GTCTGATATT	12780
GCAGAAGTAC GAGAAAAACA AGAATCACCA ACAGCCGATA GAAAATATTC ATTAGGAGTT	12840
TACGATAGAA TATCAGCACC AAGTTGGGG CATAAGAGTA TGTATTACC ACTACTAACT	12900
TTACCTGAAG AATCTGTGTA TATTTCATCG AATATGTCTA CACTTGCATT CGGTTCTGAT	12960
GAAAGATATC GTGATAGTGT GGATGGAGTT ATTCTTTCAG GAGATGCTTT ACGAACTTAT	13020
GTAAGAAATA GAGTTGATAT AGCAGCGAAA AGGCATAGAG ACCATTATGA TATTTGGTAC	13080
AATCTTCTTG ACAGTGCTTC AAAAGAAAAA CTTTCCGTT CTGTGATAGT TTATGATGGA	13140
TTCAATGTAA AAGATGAGAC AGGAAGAACT TATTGGGCAA GGTTAACGGA TAAAAACATC	13200
GGCTCTATTA AAGAATCTT CGGACCTGTT GGGAAATGGT ATGAGTATAA TAGTAGTGCA	13260
GGAGCGTATG CGyAtGGAAG TTTAACGCAC TTTGTGTTAG ATAGATTATT AGATGCTTAT	13320
GGAACGTCGG TTTATACTCA TGAAATGGTT CATAATTCTG ATTCTGCAAT CTACTTTGAA	13380
GGAAATGGTA GACGTGAAGG ATTGGGAGCG GAGTTATACG CACTTGGTTT ACTGCAATCT	13440
GTAGATAGTG TAAATCTCA TATTTTAGCT TTAAATACGT TATATAAAGC AGAAAAAGAT	13500
GATTTGAATA GATTGCATAC ATATAATCCG GTGGAACGTT TCGATTCCGA TGAGGCGCTT	13560
CAAAGTTATA TGCATGGATC ATATGATGTA ATGTATACAC TTGATGCGAT GGAAGCAAAA	13620
GCGATATTAG CTCAAAATAA TGATGTTAAG AAAAAATGGT TTAGAAAAAT AGAAAATTAT	13680
TACGTTCTGT ATACTAGACA TAATAAGAT ACACATGCAG GAAATAAAGT CCGTCCATTA	13740
ACAGATGAAG AAGTAGCTAA CTTAACATCG TTAACTCAT TAATCGACAA CGACATCATA	13800
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TATGTTTCTA ATCAGTACGG AGCAGAAGCA TTTGCCAGCG GAAGCAAAAC ATTCTCATCA	14040
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GGTGAGTACT CATCATGGGC TGATTTCAA AAAGCAATGT TTAACAACG TATAGATAAA	14160
CAAGATAATC TGAAACCAAT AACAATTCAA TACGAATTAG GTAATCCTAA TAGTACAAA	14220
GAAGTAACTA TAACAACGGC TGCACAAATG CAACAATTAA TTAATGAAGC GGCTGCGAAA	14280
GATATTACTA ATATAGATCG TGCAACGAGT CATACCCAG CAAGTTGGGT GCATTTATTA	14340

1094

AAACAAAAA TCTATAATGC ATATCTTCGC ACTACAGATG ACTTTAGAAA TTCTATATAT	14400
AAATAAGATT GTAGAGTTTC ATTGTTGAGT AGTGTTCCTT GTAAGGATGA GGAGTCAGAT	14460
GACAAATCGA CTCCTTTTTC TTATGGATCG ATGTAGAGAT TTGATTGAAT GCAGATTGCA	14520
GGAATCATCT TCAACTCATC AACGACCAAT GGTGACAAGG TGGATTTCAT TCCCACAGAA	14580
AATGTTGATT TGAGAAATAA CTTTGCTAGT CTAGTAAAT AAATACAAAA CAATCCTAGA	14640
AGATTTTTTC TGGGATTGTT TTTTGCTGAG TGGGATGCTT CAAGTTGTCT GGCTTGACTT	14700
TCTTGAGGGA AGTTATATAA TAGTTGTAAT AATTAG	14736

(2) INFORMATION FOR SEQ ID NO: 172:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11770 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 172:

ACAGGAAAGC ACGATAGCAA TCTCTTGGA AGATTAAAA AATATTCCTC AAAGTTTCGC	60
TGTTGCTTAC GGTGATACGA AAGTATCTTC GATTCTCTCT GTCTTGCGTG CTAATTTAGT	120
AAATCATTG ATTACAGACA AAAATACAAT TTTAAAAGTT TTGGAAGAAG ATGGGGATTT	180
GACTTTTAGA GAGATTCTAG GTGAGTGAAA ATGATAGACT GATTCACTTT ATCGTTTTTC	240
TTTTTAGTTG ATTGCACATT TGTGCTTATA TAAACAAAA TAGTTTATCT GTTGTTTTTG	300
GATTGACAAC TTTATTATGT AGTTGTATTC TATAGTTACA AAAGAAAAAT TTAAAATTC	360
AAATGAAAA AGCTTTTTAC ATAGTGAAT GAGGAGGAAT TTATGGAAAT GATTGTTCCA	420
GATCAAAATA TCATGGGTTT AATTTTATAT GCTGGTGATG CGAAACAACA TATTTATAAA	480
GCGTTAGATT ACATAAAAAA TGGTACATGT GAACGGTGTG AAGAAGAAAT ACAGTTAGCT	540
GATGCAGCCT TATTAGAAGC TCATAATCTA CAAACAAAAT TTTTGGCACA GGAAGCGTCT	600
GGTACAAAAGA CAGAAATTAC AGCTCTCTTT GTTCATTCAC AAGATCATCT CATGACCACT	660
ATGACGGAGA TTAATTTAAT CAAAGAAATT ATTAGTTTGA GAAAAGAACT TCATAAAAAA	720
TAATACTAGA GTATTATCAT TGTATTAAAC ATAGAGGAGG AAAACATAAT GGTGAAGATT	780
GGTTTGTTTT GTGCAGCAGG TTTTCTACT GGTATGCTTG TAAATAATAT GAAAATTGCA	840
GCGCAATCTA GTGGAGTTGA GGCAGAAATA GAGGCGTTTT CTCAGTCTAA ATTAGCGGAT	900
TATGCGCCAA ATATAGATGT TGCATATTG GGTCCACAAG TTGCTTATAC ATTAGATAAA	960
TCAAAAGAAA TTTGTGATAA GTGTGATGTT CCGATAGCTG TTATCCGAT GATGGACTAT	1020

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GGTATGTTAG ATGGGAAAAA AGTATTAGAT TTGGCCCTAT CTTTGATTAG TGGGTAAGAA	1080
AAGGAGATTT ATTATGTCAA AGATGGATGT TCAGAAAATC ATTGCACCGA TGATGAAGTT	1140
TGTGAATATG CGTGGCATTAG TAGCTCTAAA AGATGGGATG TTAGCAATTT TGCCATTGAC	1200
AGTAGTTGGT AGTTTGTCTT TGATTATGGG ACAATTGCCG TTCGAAGGAT TAAATAAGAG	1260
CATTGCTAGT GTTTTGGAG CTAATTGGAC AGAGCCGTTT ATGCAAGTAT ATTCAGGAAC	1320
TTTGTCTATT ATGGGTCTAA TTTCTTGTTT TTCAATTGCC TATTCCTTATG CTAAGAATAG	1380
CGGAGTAGAG GCTTTACCAG CTGGAGTCTT ATCTGTATCT GCATTCTTTA TTTTGCTAAG	1440
ATCATCTTAT ATCCCTAAAC AAGGTGAGGC GATTGGGGAC GCTATTAGTA AAGTTTGGTT	1500
TGGAGGCCAA GGAATTATCG GTGCTATCAT TATAGTTTG GTAGTAGGAA GTATTTATAC	1560
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CAACAGTTT GAAGCAATGA TTCCAGCATT TGTAATTTTC TTATCTTCTA TGATTGTATA	1680
TATTTTAGCG AAGTCATTGA CTAATGGCGG AACATTCATA GAAATGATTT ATTCTGCTAT	1740
TCAAGTCCG TTGCAAGGTT TAACTGGATC TTTGTATGGT GCTATTGGAA TTGCATTCTT	1800
TATATCATTT TTGTGGTGGT TTGGTGTTC TGGGCAATCG GTAGTAAATG GAGTAGTGAC	1860
AGCTCTGCTT TTATCTAATC TTGATGCTAA TAAAGCTATG TTAGCCTCTG CTAATCTATC	1920
ATTAGAAAAT GGTGCACATA TTGTTACTCA ACAATTTTTC GATTCATTTT TAATCTATC	1980
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ATACCAAGCC TTAGGAAAAG TTGCAGCTTT TCCAGCAATA TTAAACGTAA ATGAGCCAGT	2100
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TGTACTTGCA GCTGTGATAG TATATGGAGC TATTGCAACA GGTTTCATGC AGCCATTCTC	2220
AGGGGTAACA TTGCCTTGGA GTACACCAGC TATTTTATCA GGATTTTGG TGGGTGGATG	2280
GCAAGGAGTT ATTACTCAGC TGGTGATATT AGCGATGTCT ACATTGGTTT ATTTTCCATT	2340
CTTTAAAGTA CAGGATCGTT TAGCTTACCA AAATGAAATC AAACAATCTT AGAGGTATTT	2400
GTGTGTTACT GTTAACTCA CACATTTGTG CTAATAATTA GAGAGTTAAA ATTTTCTAG	2460
TTAAAAGCTT GAAAATTTCT ATAAAAATCG GTATTATATT TTCGAAAGAA ATAAAAATAT	2520
TTTCGAAAGA AAGGTGCTTA CGATGGTAAA TACAGAAGTA GCAAGAACAA CAATCAAGAC	2580
AGAATATTTT GGCAGCCTTA CTGAAAGGAT GAACAAATAT CGAGAAGATG TTTTAAATAA	2640
AAAACCTTAT ATTGATGCTG AGAGAGCAGT TCTAGCAACA CGCGCCTATG AACGATACAA	2700
GGAACAACCT AATGCTCTAA AACGTGCATA TATGCTGAAA GAAATTTTGG AAAATATGAC	2760

	1096	
TATCTATATT GAAGAAGAAT CTATGATTGC GGGAAATCAA GCTTCTTCCA ATAAAGATGC	2820	
TCCTATTTTT CCGGAATATA CGCTAGAATT TGTCTCTCAAT GAGTTGGATC TTTTGTAAAA	2880	
GCGTGATGGA GATGTTTTCT ATATTACAGA AGAAACAAAA GAACAACCTA GAAGTATTGC	2940	
TCCGTTTTGG GAAAATAATA ATTTACGTGC TAGAGCTGGT GCCTTATTAC CTGAAGAAGT	3000	
GTCTGTTTAT ATGGAAACAG GATTCCTCGG TATGGAAGGT AAGATGAATT CTGGAGATGC	3060	
TCACCTAGCA GTTAACTATC AGAACTTTT GCAATTGGT TTAAGAGGT TGAAGAGCG	3120	
GGCTCGTAAA GCAAAAGTAG CTCTAGATTT AACAGATCCA GCAAGTATTG ATAAATATCA	3180	
TTTTTACGAC TCTATATTTA TCGTAATCGA TGCTATTAAA GTATATGCAA AGCGCTTTGT	3240	
TGCTCTTGCT AAAAGTTTAG CCGAAAATGC AAATCCTAAA CGTAAGAAAG AATTACTTGA	3300	
GATTGCAGAT ATTTGCTCTA GAGTCCATA TGAACCGCA ACTACTTTTG CAGAAGCTAT	3360	
TCAATCAGTT TGGTTTATTC AATGTATTTT ACAAATTGAA TCTAATGGCC ACTCTCTTC	3420	
ATATGCGCGT TTTGATCAAT ATATGTATCC ATATATGAAG GCTGATTTAG AAAGTGGTAA	3480	
AGAAACAGAA GATAGCATTG TTGAACGTCT GACAAATCTT TGGATTAGA CAATTACAAT	3540	
TAATAAGGTT CGCAGTCAAT CACATACATT TTCTTCAGCA GGAAGTCCTT TATATCAAAA	3600	
TGTTACAATT GGTGGACAGA CTCGAGATAA GAAGGATGCT GTTAACCCAT TATCTTATTT	3660	
GGTATTAAAA TCAGTTGCAC AAACCCATCT ACCGCAACCT AATCTAATG TACGTTACCA	3720	
TGCAGGTTTA GATGCTCGTT TCATGAATGA GTGTATTGAA GTGATGAAAC TTGGTTTTGG	3780	
TATGCCTGCA TTTAATAATG ATGAGATTAT TATTCCTTCT TTTATTGCAA AAGGAGTATT	3840	
GGAAGATGAT GCTTATGATT ACAGTGCCAT TGGATGTGTT GAAACGGCAG TTCCAGGGAA	3900	
ATGGGGCTAT CGTTGCACAG GTATGAGTTA TATGAACCTC CCTAAGGTTC TACTTATCAC	3960	
GATGAATGAT GGAATTGATC CGGCTTCGGG TAAACGGTTT GCACCAAGCT TTGGTCGTTT	4020	
TAAGGATATG AAGAACTTTT CTGAATTAGA AAATGCTTGG GATAAAACAC TAAGATATTT	4080	
GACACGAATG AGTGTTATTG TTGAAAATTC TATTGATTTA TCATTGGAAC GAGAAGTTCC	4140	
TGATATTCTA TGTTCAGCAT TGAATGATGA TTGTATTGGT CGTGGAAAAC ACCTTAAAGA	4200	
AGGTGGAGCA GTATATGATT ATATATCAGG ATTGCAAGTT GGAATTGCAA ATTTGTCCGA	4260	
TTCATTAGCT GCAATTAAAA AATTGGTGTT TGAGGAAGAA CGTATAAGCC CAAGTCAGCT	4320	
TTGGCATGCA CTGGAAACAG ATTATGCCGG AGAAGAAGGT AAGGTCATTC AAGAAATGTT	4380	
GATTTCATGAT GCACCTAAGT ATGGTAATGA TGATGATTAT GCTGACAAAT TGGTTACTGC	4440	
TGCTTATGAC ATTTATGTTG ATGAAATGTC TAAATATCCT AATACAGTT ATGGAAGAGG	4500	
GCCTATTGGA GGAATTCGTT ATTCAGGAAC ATCTTCTATC TCAGCCAACG TAGGGCAGG	4560	

1097

ACGTGGAACA TTAGCAACTC CAGATGGACG CAACGCGGGT ACACCGTTAG CAGAGGGTTG	4620
TTCACCATCA CATAATATGG ATCAACACGG CCCTACATCT GTTTTAAAT CTGTTTCAAA	4680
ATTACCAACA GATGAAATCG TAGGTGGGGT TCTCTTAAAT CAGAAAGTAA ATCCTCAAAAC	4740
GTTAGCCAAA GAAGAAGATA AATTAAACT AATTGCTTTG TTACGAACAT TCTTTAATCG	4800
TTTACATGGG TACCATATTC AATACAATGT TGTTCCAGA GAGACGCTGA TTGACGCTCA	4860
GAAACATCCT GAAAAACACA GAGACTTAAT TGTTGCTGTT GCAGGATACT CTGCATTCTT	4920
CAATGTTCTT TCTAAGGCAA CCCAAGATGA CATTATAGGA CGTACTGAGC ATACTTTGTA	4980
AAATAAAGAG GTTCTTTTGA TGGAATTAT GCTTGACACA TTAAATTTAG ATGAGATTAA	5040
AAAGTGGTCT GAAATTTTGC CGCTAGCTGG GGTAACTTCA AATCCCACTA TTGCAAAAAG	5100
AGAGGGTCTT ATTAATTTTT TTGAACGAAT CAAAGATGTA AGAGAATTGA TTGGCTCTAC	5160
ACCCCTCTATT CATGTTTCTG TGATTTCTCA AGATTTTGAA GGCATCTTAA AGGATGCTCA	5220
TAAATTCGA AGACAAGCAG GAGATGATAT ATTTATCAAA GTACCTGTTA CTCCAGCTGG	5280
ATTACGTGCA ATAAAGGCGC TAAAAAAGA GGGCTACCAT ATCACTGCAA CAGCTATTTA	5340
TACAGTTATT CAGGGATTAT TAGCTATCGA AGCAGGAGCG GATTACCTAG CTCCATATTA	5400
TAATAGAATG GAAATCTGA ACATTGATTG AAATTCTGTC ATTCGTCAAT TAGCTCTTGC	5460
TATTGATAGA CAGAACTCTC CTAGTAAGAT TTTAGCTGCA TCCTTTAAAA ATGTAGCACA	5520
AGTAAATAAT GCTTTAGCTG CAGGTGCGCA TGCTGTTACA GCAGGAGCGG ATGTTTTTGA	5580
ATCAGCTTTC GCCATGCCAT CTATCCAAA GCGGTTGAT GATTTTTCTG ACGATTGGTT	5640
TGTTATTCAA AATAGTCGTT CCATTAGAT AGAGAGGAAA TACATATGAG AATTTTGTCT	5700
AGTCCTTCTA GATATATTCA GGGGAAAAT GCCTTGTTTG AAAATGCCAA ATCAATTTTG	5760
GATTTGGGAA ATTGCCCTAT TCTATTATGC GATCAGTTGG TTTATGATAT TGTGGAAAA	5820
CGATTGGAAG ATTACCTACA TAGGTATGGT TTCCATATTG TTCTGGCGCT ATTTAATGGT	5880
GAAGCTTCTG ACAATGAAAT CAATCGAGTT GTTGCCTTGG CTGAGAAAAG AAATGTGTAT	5940
AGTATTATCG GTCTTGGTGG GGGAAAGACG ATTGATAGCG CAAAAGCTAT TGCAGATTG	6000
ATTGAAAAGC CTGTTATTAT TGCTCCAACA ATTGCATCGA CCGACGCACC TGTATCTGCT	6060
TTATCTGTTA TTTATACAGA TGAAGGTGCA TTTGATCATT ATCTATTTTA TTCTAAAAAT	6120
CCAGATTTAG TTTTGGTTGA TACAAAAGTT ATTTCAACAAG CCCCTAAGCG TTTATTAGCG	6180
TCTGGTATTG CAGATGGTTT AGCAACTTGG GTTGAGGCGC GTGCGGTAT GCAGGCAAAT	6240
GGAAAACTA TGTGGGACA ACAGCAAACA TTGGCTGGAG TTGCAATTGC GAAGAAATGT	6300

1098

GAAGAAACGC TGTTCGACAG TGGTTTACAG GCTATGGCAG CTTGTGAAGC TAAAGTGGTG	6360
ACACCAGCAT TAGAAAATAT TGTGAAGCT AATACTTTAT TGAGTGGTCT AGGTTTTGAA	6420
AGTGGAGGAT TAGCTGCGGC GCATGCAATT CATAATGGTT TTAGTGCATT GACAGGTGAC	6480
ATTCATCATT TAACACATGG TGAAAAAGTA GCTTATGGAA CTTTAGTACA ACTATTATTG	6540
GAAAAAGAC CTAAAGAAGA ACTTGATAAG TATATTGAGT TTTACAAAAA AATGGGTATG	6600
CCAACAACCT TAAAGAAAAT GCATTTGGAT CAAGTTGGAT ATGATGATTT AATAAAAGTT	6660
GGTAAACAAG CAACTATGGA GGGTGAGACA ATTCATCAGA TGCCGTTTAA GATTTGCGCT	6720
TCAGATGTTG CTCAAGCTAT TATCGCTGTA GATGCCTATG TAAATTCAAA ATAAACAATA	6780
AGGACTACTG TTTTCCAAAT GGTAGTCTTT TATTGATCCC TGTATTGAAT TCTATAGAAG	6840
ATTGAAATAG GATGAGAACA AATCGATTGG GAAAGTAAAA TTAATTTCTA TAAATGTTTT	6900
AGCAATGTT TCGTACTATT TCAGATTCAG TCTACTATAT GTTCTTCATA AATCAAAAAA	6960
CGACATAGGT TGTCGGCTAT TTATTGTGAA TACATTAATT AGCATTCAG TTTTATCTTC	7020
GGTCTAAAT AAGTATTTTG TGCTATACGA GATAAGCTTC TTGACTTACT CCTTGATTTA	7080
CTGCATAACA ATGGGATAAA AAGTGGGAGA TAGAGCAATT CATAGTCATC AAAATTAATG	7140
AGATACAGTA TACAGTTTTT CCTTTAAACA CATTTCAAAT TCCCTCAAAA ATGGTATAAT	7200
AGTAACATCA CAAAATTGGA GAGAGACCAT GAGTTTTTAC AATCATAAAG AAATTGAGCC	7260
TAAGTGGCAG GGCTACTGGG CAGAACATCA TACATTTAAG ACAGGAACAC ATACATCAAA	7320
ACCTAAGTTT TATGCGCTTG ATATGTTCCC TTATCCGTCT GGAGCTGGTC TGCACGTAGG	7380
ACACCCAGAA GGTATACTG CAACCGATAT CCTCAGTCGT TACAAACGTG CGCAAGGCTA	7440
CAATGTCCTT CACCAATGG GTTGGGATGC TTTTGGTTTG CCTGCAGAGC AATACGCTAT	7500
GGATACTGGT AATGACCCAG CAGAATTAC AGCGGAAAAC ATTGCCAACT TCAAACGTCA	7560
AATTAATGCG CTTGGATTTT CTTATGACTG GGATCGTGAA GTCAACACAA CAGATCCAAA	7620
CTACTACAAG TGGACTCAAT GGATTTTCAC CAAGCTTTAC GAAAAAGGCT TGGCCTATCA	7680
AGCTGAAGTG CCAGTAACT GGGTTGAGGA ATTGGGAACT GCCATTGCCA ATGAAGAAGT	7740
GCTTCCTGAC GGAACCTCTG AGCGTGGAGG CTATCCAGTT GTCCGCAAAC CAATGCGCCA	7800
ATGGATGCTC AAAATCACGG CTTACGCAGA GCGCTTGCTC AATGACTTAG ATGAAGTAGA	7860
TTGGTCAGAG TCTATCAAGG ATATGCAACG CAACTGGATT GGTAAATCAA CTGGTGCCAA	7920
TGTAACCTTC AAAGTAAAG GAACAGACAA GGAATTTACA GTCTTTACTA CTCGTCCGGA	7980
CACACTTTTC GGTGCGACTT TCACTGTCTT GGCTCCTGAA CATGAATTAG TAGACGCTAT	8040
CACAAGTTCA GAGCAAGCAG AAGCTGTAGC AGACTATAAA CACCAAGCCA GCCTTAAGTC	8100

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TGACTTGGCT CGTACAGACC TTGCTAAAGA AAAACAGGG GTTTGGACTG GTGCTTATGC	8160
CATCAACCCCT GTCAATGGTA AGGAAATGCC AATCTGGATT GCAGACTATG TCCTTGCTAG	8220
TTATGGAACA GGTGCGGTTA TGGCTGTGCC TGCCACGAC CAACGTGACT GGGAATTTC	8280
CAACAATTT GACCTTCCAA TCGTCGAAGT ACTTGAAGGT GGAAATGTCG AAGAAGCTGC	8340
CTACACAGAG GATGGCCTGC ATGTCAATTC AGACTTCCTA GATGGATTGA ACAAAGAAGA	8400
CGCTATTGCC AAGATTGTGG CTTGGTTGGA AGAAAAGGC TGTGGTCAGG AGAAGGTTAC	8460
CTACCGTCTC CGCGACTGGC TCTTTAGCCG TCAACGTTAC TGGGGTGAGC CAATTCCAAT	8520
CATTCAATGG GAAGATGGAA CTTCACAGC TGTTCCTGAA ACTGAATTGC CGCTTGCTCT	8580
GCCTGTAACC AAGGATATCC GTCCTTCAGG TACTGGTGAA AGTCCACTAG CTAATTGAC	8640
AGATTGGCTT GAAGTGAATC GTGAAGATGG TGTCAAAGGT CGTCGTGAAA CCAACACTAT	8700
GCCACAATGG GCTGGTTCAA GCTGGTACTA CCTCCGCTAT ATTGACCCGC ACAATACTGA	8760
GAAATTGGCT GATGAGGACC TCCTCAAACA ATGGTTGCCA GTAGATATCT ACGTGGGTGG	8820
TGCGGAACAT GCTGTACTTC ACTTGCTTTA TGCTCGTTTC TGGCATAAAT TCCTCTATGA	8880
CCTCGGTGTT GTTCCGACTA AGGAACCATT CCAAAAATC TTTAACCAAG GGATGATTTT	8940
GGGAACAAGC TACCGTGACC ACCGTGGTGC TCTTGTGGCA ACCGACAAGG TTGAAAAACG	9000
TGATGGTTCC TTCTTCCATG TAGAAACAGG GGAAGAGTTG GAGCAAGCGC CAGCCAAGAT	9060
GTCTAAATCG CTCAAGAAGC TTGTTAACC AGACGATGTG GTGGAACAAT ACGGTGCCGA	9120
TACCCTTCGT GTTTATGAAA TGTTTATGGG ACCACTCGAT GCTTCGATTG CTTGGTCAGA	9180
AGAAGGTTTG GAAGGAAGCC GTAAGTTCCT TGACCGAGTT TACCGTTTGA TTACAAGTAA	9240
AGAAATCCTT GCGGAAAACA ATGGTGCTCT TGACAAGGTT TACAACGAAA CAGTCAAAGC	9300
TGTTACTGAG CAAATTGAGT CTCTCAAATT CAACACAGCT ATTGCCCAAC TTATGGTCTT	9360
TGTCAATGCT GCTAACAAGG AAGATAAGCT TTATGTTGAC TATGCCAAAG GCTTTATTCA	9420
ATTGATTGCA CCATTTGCAC CTCACTTGGC AGAAGAACTC TGGCAAACAG TCGCAGAAAC	9480
AGGTGAGTCA ATCTCTTATG TAGCTTGGCC AACTTGGGAC GAAAGCAAAT TGGTTGAAGA	9540
TGAAATTGAA ATTGTCGTCC AAATCAAAGG AAAAGTTCGT GCCAAACTCA TGGTTGCTAA	9600
AGATCTATCA CGTGAAGAAT TACAAGAAAT CGCTTTAGCT GATGAAAAAG TCAAAGCAGA	9660
AATTGACGGT AAGGAAATCG TGAAAGTAAT TGCGGTACCG AATAAACTCG TTAATATCGT	9720
CGTTAAATAA CGAGTTTATT AGCTCTATCT GCCACCTTCA ATAGTCCACT GGACTATTGA	9780
AsCCAACTAA ATTAGTTAAC ATTGTTGTGA AATAAGATAG GAGTCCTTCA GAGTAGAATC	9840

1100

TGGAGGATTT TTTGAATCTT CTTATGAAAG TATGATATAC TATGGGCAAC TATAAAGTTT	9900
GAAAAGTGAA ATAAGGAGAA TAAGATGCCA GTAAATGAAT ATGGTCAAAT GATTGGGGAG	9960
TCAATGGAAG CTTATACTCC AGGTGAATTG CCTTCTTTTG ATTTCTTAGA AGGGCGTTAT	10020
GCTAGGATAG AGGCTCTTTC AGTGAAAAG CATGCCGAGG ATTTATTAGC TGTTTATGGC	10080
CCTGATACGC CTCGGGAGAT GTGGACCTAC CTCTTTCAGG AGTCAGTAGC AGACATGGAG	10140
GAACTGGTCA GCCTTTTAAA TCAGATGTTG GCTCGTAAGG ACCGTTTTTA TTATGCAATC	10200
ATAGACAAGG CAACTGGTAA GGCTTTGGGA ACTTTTTCCC TCATGCGAAT TGATCAGAAT	10260
AACCGAGTAA TAGAAGTGGG AGCTGTCACT TTTCTCCAG AGCTCAGGGG GACACGGATA	10320
GGAACAGAAG CCCAGTATCT CTTGGCTTGC TATGTCTTTG AGGAGCTTAA CTATCGTCGC	10380
TATGAGTGGA AATGCGATGC TCTTAACCTG CCATCCAGAC GAGCAGCGGA ACGTTTGGGA	10440
TTTATTTATG AAGGAACCTT CCGTCAGGCA GTGGTTTATA AGGGGCGTAC AAGAGATACG	10500
GATTGGTTGT CTATGATTGA TAAGGACTGG CCTCAAGTCA AAGCTCGATT GGAAATATGG	10560
TTGCGTCCTG AAAACTTTGA TAAAAATGGA CGACAGCACA AGAGCTTGAG AGAACTTTAA	10620
GAGGTGTTGA GATGATTACT ATTAAAAAGC AAGAAATTGT CAAGCTAGAG GATGTTTTCG	10680
ATCTCTATCA GGCTGTCCGT TGGACAACT ATACCCATCA AACAGAGATG CTGGAGCAGG	10740
CCTTATCTCA TTCATTAGTA ATTTATCTGG CACTTGATGG TGATGCTGTG GTGGGCTTGA	10800
TTCTTTTGGT TGGAGATGGT TTTTCATCAG TTTTGTACA GGATTTGATT GTTTTGCCTA	10860
GCTATCAGCG TCAAGGGATT GGTAGCTCCT TGATGAAAGA GGCTTTAGGA AATTTTAAAG	10920
AGGCCTATCA AGTCCAGCTG GCGACAGAAG AGACAGAAAA AAACGTGGGA TTTTATCGTT	10980
CTATGGGCTT TGAAATCTTA TCCACCTATG ACTGTACAGG AATGATTTGG ATAAACAGAG	11040
AAAAATAAAA AAACCTGTTT GTTCTTAAGC AAAGTTTAAG GATGCTCTAG TATCATATAG	11100
TCATTAAATA AAGACCTCCT AACTTTATTT AATAAAATCC TAACTTTTTT TCATCACAAT	11160
CTCCTAATGA AGCCACCCAA TCAGGTGGCT TTTTTCGGT ACGACGGGCA TGTCGTATAT	11220
CTGAGGTGTA AGTCCTCAGC CTGACTATCG TGAGGTAGCA GGGAGAGGAA GGGATAGCGA	11280
AATCGTGGCT CTACGAACAG GAACGTGATA GTAAGGCCGT TATAGCGGAT AAGGAGGCTT	11340
CAAACCTTAA AGTCCAAAAA GGTAGTCGTA ACCTATATGT GTAAATCACG AGAGTAATTG	11400
AATTCGGACT AAGGTTTGTG TGAAAAAGAT AATCTTTCT AGAGTCTAAA GACTCTGCGT	11460
CAGATTTCTT ATTTTCACTG TAACCTTTTA ACGTCCTCAT ATCTTGATA AACGAGGAAA	11520
GATGTACGAC TTATCCCGTG AGGTTTCATG AGCGCTGAAA GCGTAGTAAC AACGAATCAT	11580
GAGAAGTCAG CCGAGCCCAT AGTAGTGAGG AAACCTCCGT AATGGAAGTG GAGCGAAGGG	11640

1101

GTGAATACTC AAACAGTCTG GGGAGAGACT GTTGAGGTC TGTCGCTAGA AAGAGAAAAC 11700
 GACAGATCGA AGTAATCCTA CTTCATTGT GTCTGTAAAA TGAGTGGTCT GATAGAACTG 11760
 GACTTTGAGG 11770

(2) INFORMATION FOR SEQ ID NO: 173:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4185 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 173:

CGCGAAACTA CTTTCTTAGT ATAACACTTT CAGAATCATT GTCAATAGAA ATGACTTGAT 60
 TTTTTC AATT TTTTCAAGCT ATTTCCAAGG GTTGTAATAAT CGTCCCTGAT TCTGCAAGAT 120
 AAGTAGTAAA CTAAC TACTA AAAACAAGGT TGCCAAGAGC AAGGTAATAT AGTCTCCTTT 180
 TTCAAGGCC TGATAACTAT ACCATGTGCG TTTTCTCTCT TCCCAAAGC GCGAACTCC 240
 ATGGCAGTCG CAATGGTATC AATGCGTTCT AGCGAGCTAA AAATCAAGGG CGTAATAATG 300
 AGCAGATTGC CTTTGATTCTG TTGCATAAGA GAAGCTTTCT TGGATAATTC CATCCCACGC 360
 GCCTCCTGAG ACATCTTGAT AGTAAAGAAT TCTTCCTGCA AATCTGGAAT ATAGCGCAAG 420
 GTCAGGCTGA CAGAATAAGC AATCTTATAG GGCACACCAA TTTGATTAA ACTGGAAGCA 480
 AACTGACTAG GATGGGTTGT CATCAAAAAG ATAATAGCCA GAGGAATGGT GCAAAGATAC 540
 TTAATGGCCA AATTTAGCAG ATAAAAGAGC TCCTGGCTGG TTAGAGTGTA GACACCGATT 600
 CCCTGCCAAA TCACACTTCT CTCTCCATAA AGTCCAACCC CATACTCGGG AGAAAAGAGA 660
 TAGACCATCA AAACGTTTAA AACGGCAAAT ATCGTCGCAA AAACGGCTAC AAAGGAAACA 720
 TCTTTAAAGC GAATTTCTGA TAAATAGAGG AGAAAGACTG AAAAGATGGC AATCAGCAAG 780
 AGCATTCTGG TATCATAGCT AATCATGGCC GCCAATGATA CCAGAATGAA AAAGAGAAGT 840
 TTCCCAGCTC CTGACAAGCG ATGAATCACA GTATCTCTAT GCTGGTAACC GATTAATTTA 900
 GCTTGCATCC CTCTCTCCTT TCTTTGTAAA ATGCCGTTAA ATCCAGTGA TCCACATCTA 960
 GTTCTTAGC CAAGTTAAAG ATGGAGGTTT CTTTGTAGATT GGCTTTTACT AACAGCTCAG 1020
 GATCGCTCAA CAGACTGGCT GGAACAGTAT CGGCAATCAA TTCTCCATCC ACCATGACAA 1080
 GGACCCGGTC TGAATAATCC AGCATCAATT GCATATCATG GGTAATCATG ACAATGGTAT 1140
 GCCCTTTTGT ATGTAAC TCT TCGAGAAATT CCATAATCTC AGTATAGTTC TTCTGATCTT 1200

1102

GACCTGCAGT	CGGTTCATCT	AGGAGAATAA	TTTCAGCTCC	TAAGACCAAA	ATTGAAGCAA	1260
TGGTGACACG	TTTTTCTGA	CCAAATGACA	GGGCAGAAAT	AGGCCAATTA	CGGAATTCAT	1320
AAAGTCCACA	GATTTTCAAG	GTTTCATATA	CTCTCGTTTC	AATTTCCCTTC	TCATCCACAC	1380
CTCGCAAACG	GAGCCCTAGA	GCCACCTCAT	CAAAAATCAT	ATTGGTTGAA	ATCATTTGAT	1440
TAGGATTTTG	TAGCACATAT	CCTACTCGTT	CGCCCCGCTC	TGCAACAGAA	TCGCCTTTTA	1500
TATCCTGTTT	TTCCCAAAGA	TAGCGTCCTT	CCGTCTGAAT	AAAGCTACTT	ATAGCCTTGG	1560
CTAGAGTTGA	TTTCCTGCT	CCATTTTTTC	CGACAATAGC	AATCTTTTCA	CCCTTTTTAA	1620
TATCTAAATG	TAGGGATTTT	AAAATCGGTC	TATCATCATA	AGAAAAAGAT	ACTTCCTCTA	1680
GTCTAAAGAG	TGACTGCAAT	GCTGGGGTTT	CTTTTGCCAG	TTCATTCTGC	AACTGAACCT	1740
GACCTTTTGA	GATAGACAAG	TTATCCAGAT	TCGCTAATTG	TTCTTCCTTG	ACTAAGTCCA	1800
CACCTAATTG	ACGGAGAGTC	GTTAGATAAA	GGGGTTCTCG	AATTCATTTT	TGAGTCAATA	1860
AATCAGTCGC	AAGCAACTGG	TCAGGGCTCC	CATTAAAAAG	GATACGACCA	TCGTTTATCA	1920
AGACAATCCG	ATCCACAGGG	CGATGCAGAA	CGTCCTCCAA	ACGGTGCTCG	ATAATAAGAG	1980
TCGTCTGCC	CTCTTCCTTA	TGAATCTGGT	CAATCAATTC	GATAATATCC	TGACCTGACT	2040
TGGGATCTAG	ATTGGCGAGT	GGCTCATCAA	ACAAGAGAAT	CGGACTTTCA	TCAATCAAGA	2100
CACCAGCCAG	ACTGACTCGC	TGCTTTTGTC	CACCTGACAA	ATCCTGAGGA	CGCTGATCCA	2160
GTAAAGGAAG	AAGTCCAGC	TTTTCAGCCC	ATTTATAAAC	ACGACCTTTC	ATCTCATCTA	2220
GGGCTGTAC	ATCATTTTCC	AGAGCAAACG	CCAAATCTTC	TGCCACAGAC	AAGCCAATAA	2280
ACTGCCCATC	TGTATCCTGC	AAAATGTGC	TAACCAGATG	AGACTTATCA	TAGATGCTCA	2340
TATCAAAGGC	TACTTGACCC	TTTATCAAAA	ATTCTCCATA	TGTCTGACCC	TTGTAAATAT	2400
TGGGAATAAT	CCCATTCAAA	CACTGACCCA	AGGTAGATTT	ACCTGACCCA	GATGGTCCAA	2460
CAATTAAGAC	TTTCTCTCCC	TTGTAAATGG	TCAAGTCTAT	CCCTTGCAAG	GTCGGTTCTT	2520
GTTGTGTTTC	ATACCGGAAA	GAGAAATCCT	TCCACTCAAT	TaTAGCTTCT	TTCATCTTAC	2580
TCTCTTCATT	CGCTTCTTAG	ACTTCTATTT	TATCATAAAT	CAAGCCCTTC	TTGCAGTCTC	2640
TCCTCTTAAA	ATCTTAGCGC	CAAAAAGATT	CCTATCCTAG	CTTACTTGCC	TAATAATCT	2700
ATAAACATCG	AAAAAGACTA	GTTGCCCAGC	CTTCCCCATC	ATTTTATACT	CTTCGAAAAAT	2760
CTCTTCAAAC	CACGTCAGcT	TCGCCTTGCC	GTAGGTATGG	TTACTGACTt	CGTCAGTTTC	2820
ATCTACAACC	TCAAAACCAT	GTTTGTAGCc	TGCTTCGTCA	GTTCTATCCA	CAATCTCAAA	2880
ACACTGTTTT	GAGCAACtGC	GGCTAGCTTC	CTAGTTTGCT	CTTTGATTTT	CATTGAGTAT	2940
TAGTCCTTTT	TCAAACCTCC	TGCACGAGTT	TGGGTTCTCG	CATAGGCAAG	TAAGAGAAGA	3000

1103

G TTCCTGCAA TAGCTACAGA TACACCATTG GCAATTCCCC CAACAATCCC TTGTGCAAAT	3060
A CTTTTTCTG CCGCTTCTTG ATAAATCACA ACATCTCCAA GTGGTGCCAA GACACCCCAA	3120
A CAAGGGCAT TTGCAAGTAG TTGAATGAGA TTAATAATAA GAATATCTTT CCAGTCAAAA	3180
A CACCATTGA TCACGCGAAC GTACTTTCTA AAAAGTCCCA CAACTAAACC AAAGAGTCCG	3240
C TAGCGATAA TCCAAGTCCA CCATAGACCA TAACCAACAA GAGAGTCCTT GATTGCATGA	3300
C CAATCAACC CGACAAGCAA ACCGATAATC GGTCCAAAAA TAATAGAAAG TAGCGCTTGT	3360
A CCGCATACT GAAGCTGGAT GCTTGTATTT GGAACAGGGG TTGGAATGTT GATCATCCCG	3420
A TGACGACAA AGAGGGCAGC GCCAATTCCG ACAGCAACAA CTTGTTTAAT TGTAATTTG	3480
A TTTCCATAC TATTCTCCTA TTTTATCCTT CTATTTTCTT TATTTCAATG GTCCAAGATG	3540
A ACCGACACC TACATTATAG GCCTTGCGAA AGGAACCTTG GTTGATAGCC AAACCTAAAC	3600
G ATAGAGAGA GTTGATGTAA AGGATGGGTT GCCCAATTCT CACATCTGCA AATGATTTGC	3660
C ATAGACAAC CTGATTTTGA TAGACCAGCA TATCAGCATG ATAGATGGTC ACTTCAAAAC	3720
G ATCACCAAA TTCTGGTTCC AGCTTGTAAG ATTCTTCCCG TGTGATAGAG GTCCAAAGCG	3780
A ACCGAAACG CACATCCAGA ATATCAATGG CTCCCTTCAC CAGATGATCT TCTATGATGG	3840
T CGCTACGAC TGAAGCTCT ACAATCTGTT CCACACTGAG CTCTGGCCCT ACTTCTCAA	3900
A AGTAATGTG ACCACTGGCC AGTTTAGCAC CAGTATAGGC ATAGACATCA CGACCGTCCA	3960
A AGGTATAAGA ATGCTCTGTG TTTTGACGCC TATTGGCCAC CTCAGAAATC TCACGAATGG	4020
C TACAATGCC AACGTGTTTC TTGATAAAGG AAAGCGTCCC ATTATCTGGC GTGACAATGT	4080
A TTGATTTTT TGCAGTCTTG GCAACTACAC TCTTACGTTT CGAACCGACA CCTGGATCGA	4140
C AACC GATAC AAACGTCGTT CCCTCAGGCC AGTAATCCAC CGTCT	4185

(2) INFORMATION FOR SEQ ID NO: 174:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2069 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 174:

TGATAGAGTT AAAGCCGCTG AGTCATTCAA TCCATCTCCA ACCATCAAAA TAGTGTGACC	60
TGCTTTCTGC AGTTTCTCTA CTAAC TCAA TTTC CCA TCA GGTTC AAGT CTGTATAGAC	120
CTGATCAAAG GGCAAATCTT TGA CTAATTC CTCTGTCTTA ATCAAGGTGT CTCCTGTTGC	180

1104

CAGAATCAAT TTTTCCCCCT GTGCCTTAAG TTTATCCAAG GCTGTTTTTG CTCTTTTCT	240
CAAAGGAGTA TGAATGCAGA ACATTCCAAT CAATTCATTT TGATAAGCCA AGAATAAGAG	300
ATTGTAGTGA CTCTGTACT CTCAATTAA AGCATTTTGT TCTGAAGTGA TATGAATCTG	360
CTCATCTGTC ATCAAGACAT AATCCCAAT AAGAACTGGT TGGCCATCTA TATGAGATTT	420
GATCCCTTG CTGCGATAT ATTGGAGTTT CCCATGCATT TCCTCATGTT CAATCCCTC	480
TATCTCAGCT TGCTTGACGA TGGCATTAGC AATAGGATGA TAAATGTGTT CCTCAAGACA	540
GGCACTGATT CTGAGAATAT CTTCTCACT ATAGTCTCCA AAAGGTAACA CCTTTCAAC	600
TATAGGATAA CTAGTTGTGA TTGTTCTGT CTTATCAAAC AAGAAAGTAT CAACTCCAG	660
ATATTTCTCC AGAACATCTC CATCCTTAAT CACCATTTCA CGGTTCAACC CTTCTTGAT	720
AACTGTCAA TAAGCTACAG GAGTAGAGAT TTTCAAAGCG CAGGAGAAAT CGACCAATAG	780
GAAAGAAATA GCCTTAGAAA AAGAACCTGT CAATAGGTAA GTCAGCCCAG CCCCCAAGAA	840
ATTATATTG ACGACTTTAT CCGCCATCTT GATGAAATAG CGTTGTTTCG TTTCTTGTT	900
TTCTTCAGAT TTCTTCATCA ACTCAATCAG CTGTAAAATA CGGCTGTCA TCTGATTATC	960
TGTTACACGA ATGCGTAAC CTCCAGTTT TAATACTGTA TTTGCACAAA CCAATCAGA	1020
CTCTCTTTT TCAACTGGAA AACTCTCTCC TGTCAGGAA CTTTCGTTGA CCATACCTAA	1080
ACCTGAAACT ACTTGCCAT CAAACAGAAT TTCATTTCT TGAGATAAGA TCAAGACATC	1140
TCCTATTTGA ACATCGGAAC TCTTGATACT AACAAACGTA TCGCCCTGTA CTAGGAATAC	1200
ATCGCTCTCT TTTGCAAGAA GACTCTGTT TAAATCTGTT GCAGTTTTT TCAAGGACCA	1260
CTGATCTAAA TGATTCCCCA AATCAAGCAT AAACATGATA TTGCTAGCTG TCTTGGATTG	1320
GTTCATAAAC AAAGACAATA AAATAGCCGA ACAGTCCAAG ACTTCCATCG TTAGTyCCTT	1380
ACGCGCTAGT GTTTGATAGG CTTCTCTAAT ATAACCCAAA GCCTGATAAC AAGTCCATAT	1440
ATAGCGAATA GGATACGGCA CAAACTACG AAAAAGTACA CGCTTAACCG CTGCACCTGA	1500
AACAATAGAA TAAGCACTCT CTTCTCTACG AATGGGAAGA GTCATCAACT CAGAACTTT	1560
CCCTTTATCA ATTCTTTTA AAAAGGCTT TGCATTATCT AATACAGAAA AGCCTTCTTT	1620
TATGCGTAGA GTAAAGTGCT GTTGATCCAT GTAAACTGG ATAGACTCAA TCCCCTTTT	1680
ATCTCTCGCC AAGGAACGAA GATAGTCTT AATATCCAAG GTAAGTGAAA AAGAAGATGA	1740
TAGTCGGATA TGTTGGTATC CTCTATGTAG CACTTTAAAA GACATATTAT TCACCTATAA	1800
GGCTATCTAA TTGCTCTTCT TTTTCTCTT GCTCGTACAA ATATTGGCA TCTTGCAAGA	1860
CATCGTCTCC ATGTTGCTT ACAACAGAAA CAGATGCATC TAGCTCGTCT TTCAACTTGT	1920
AAGCCTTAGC CAAAGCTTTA GAATAACCTT TTTTAGCTT CTTACTTGCT AAGATTTTCA	1980

1105

AACCAAGGGT ACCAAATGCG ACACCACCCA AAAATAATGA AGATTTTTTC GCAACTTTTG 2040
 CAACGGTTAA TACTTCTTTT AACATAGGG 2069

(2) INFORMATION FOR SEQ ID NO: 175:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4597 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 175:

AAATCTTGCG CAATAAAGCT CATCTCCATC TCCCGATTGA AACAGTCACT CCCC GGACTG 60
 TTCAACGTC CCAAGACATA ATCTTAGGCA GATTTCATAA ATTACTCA AAGTGAAGT 120
 CATTGAGCTT TCGAATGACA GTTGAAGTTG AAATGGCCAG CTGATGGGCA ATATCGGTCA 180
 TAGAAATCTT TTCAATTAAC TTTTGCGCAA TCTTTTGGTT GATAATACGA GGAATTTGGT 240
 GATTTTCTT GACGATAGAA GTTTCAGCGA CCATCATTTT CAAGCAATGA TAGCACTTAA 300
 AACGACGTTT TCTAAGGAGA ATTCTAGTAG GCATACCAGT CGTTTCAAGG TAAGGAATTT 360
 TATAGGTCTT TTAATGTCTA GTAATTTTGT GATAAAATGT AATTGTTCCA TATGATTCTT 420
 TCTAATGAGT TGTTTTGTCTG CTTTTCATTA TAGATCTTAT GGGACTTTTT TTCTACCCAA 480
 AATAGGCTCC ATAATATCCA TAGGGAATTT ACCCACTACA AATATTATAG AGCCCAAAGT 540
 TTAGGTCTG TGTGATAATAT GCGTTTTTTG AATTTTATAG ACTGCTCGTT TAAACTCTAT 600
 TTACTTCGTA CCTTCTGGAG CGAGACGGAA TATTAGTCAC ATACAAAATG AGTACTATTA 660
 GGATTTTATT TTCATGTACA ATTTCAGCCA GTCTTGTTAT AATCAGCCTA TAGGAATCAA 720
 GGAGGTGACT CTTATGGCTG TTTTGTGTC TTTGGATGGA ATTGTGGTAG AAGTCCTTGA 780
 TGTCTTTTCT TCTTTTAATG GGGATAGTGA GTTTTCTTG TGTATAGCAT TTTGAATCTG 840
 GAATAGGACG CCATGACTGC TAAAAGATTT CTATAAATTA ATTTGATTTT CCTAATCAAT 900
 TTGTTTCATAT CTTATTTTCAT TCCACTATAA ACGTCTTAAA GACAAGAGTC AGTTTGTAT 960
 GGAACGCTCT CAGTTCGAGG AGATGTTCCA ACTTCAAAGT AGTCGCTTGA CGACGCAAGA 1020
 AAAATTACAA TTGTTTACCT CTGTGTTTGC TGGCCGTTAT GATGTTTATG CTAAGAATTT 1080
 TATCAATGAA CAAGGGAAAA TTCAGTATTT TCCTTCCTAT GATTATGGTT GGAAGCAGTT 1140
 GCCACCTGAA AAACGGAGTT TCCAGACATT GACGAAGTCC GTTTTGAAAT CTCATTTTCG 1200
 TGGGGAGGCA GCTATCGGTA TCTTTCCTAT GCACTTAGAT GATAGCTGTT ATTTTTTGGT 1260

1106

ACTGGATTTG GATGAAGGAG ATTGGAAAGA AGCTGGTTTA ACCATTTCGAA GAATAGCCAG	1320
GGAACGCCAG ATGGAAGCCC ATTTAGAGAT TTCTCGTTTCG GGTACCGGAC TCCATATTTG	1380
GTTCTTCTTT GAGGAAGCGA TTCCGAGTCG AGAGGCTCGC TTGTTTGGA AGAACTGAT	1440
AGAACTGGCA ATGCAGGAAA GTATGCAACT GTCCTTTGAT TCTTTTGATC GCATGTTTCC	1500
AAATCAGGAT GTCCTTCCTA AGGGGGGATT TGGAAATTG ATTGCCTTGC CTTTCAAGG	1560
AGAAGCTTAC CATCAAGGGC GAACGGTCTT TGTGGATGAA CAGTTTCAGC CTTATGAAGA	1620
CCAATGGAGG TATCTACAAG AAATTCAGAG GATTTCAACT GCTAAAGTGG CACTGTTAAT	1680
CCAAGAGGAG TTAGGCAAGC AAGAATTGGA TAAGGAGTTG AAGTCGTTT TATCCAATAT	1740
GATCCAACCTT GAAAAATCGT CTGTGACATC CAAGGCACTT TTTCTTGAA AAATATGGCT	1800
TCCTTTTCTA ATCCCGAATT TTATAGTAGA TTGAAACTAG AATAGTACAC CTCTGCTTCT	1860
AAAACATTGT TAGAAATCGA TTTGACTTTC CTGATCGATT TGTCTGTGA TTATTTTCATT	1920
TTACTATATT TAAAGCAGGC TATGCGACAG CCAACCTATC AAATTCCTGA GAGAATGTAT	1980
TTATTTGGAG AATCCGATCA TTATTTATGG TTGCCAAGAG GTTGCTGTGA TCCATTGCAA	2040
GATAAATTTA AGCAGGTATC TGTGGAAGAT AGGAGAAAGG TACAAAGGTC TATTAGCGTG	2100
GAATTTAAGG GAGAACTCAC TTTTGAGCAA GAGTTAGCCC TGTCAGATAT GACTTCTAAA	2160
GAAAATGGTT TACTTCATGC GGAGACTGGT TTTGGGAAGA CCGTTTTAGG TGCTGCTCTT	2220
ATCTCTGAAC GGAAAACAAA AACAAATTAT CTAGTCCATA ATAAGCAACT CTTAGACCAA	2280
TGGCTAGATC GCTTAAACTG CTTTTTGACT TTCGAAGAGG AGGAGGCTAT CCGTTATACG	2340
GCATCAGGTC GTGAAAAGGT AATCGGCTAT GTTGGGCAGT ACGGTGGGAC TAAGAAATGG	2400
CTGAGTAAAC TGGTTGATGT CGTTATGATT CAATCTCTAT TTAAGTTGGA AAATAGTCAA	2460
AGTCTTTTGG ATGAGTATGA GATGATGATT GTGGATGAGT GTCATCATGT CTCTGCCTTG	2520
ATGTTTGAAA AAGTTGTGTC TCAGTTTAGA GGGAAAGTATC TTTACGGTTT GACGGCTACG	2580
CCTGAGCGTA AGAATGGTCA TGAGCCTATT GTTTTTCAGA GAATTGGTGA GATACTCCAT	2640
ACTGCTGATA AGAGGGAAC GGATTTTAAA CGGCAATTGC AATTAAGATT CACTTCTTTT	2700
GGTCATTTGG AAATGAAAA GACCAAAGCA AGTAATTTTA TACAGCTTAG TGATTGGATT	2760
GCTACTGACT CAGTGAGGAA TCAGATGATT CTCAAGGATA TTCTAGCCCA AGTGGCAGAA	2820
GGACGGAATA TCTTGTTTTT AGTTAATCGA ATTCAACAGA TAGATGTCTT TGAAAAATTA	2880
TTGAAAGAGA AAGAGGTGA TGAAGTTTAC ATTATTAGCG GAAAAACCA AGTCCGAGAG	2940
AGAACGAGTT TACTGGAGAC GTTAGAACAG TTAGATAAAG GGTTTGTTTT GTTGTCTACT	3000
GGAAAATACA TTGGCGAAGG TTTTGACTTA CCTCAGTTGG ACACGCTTAT CTTGGCAGCA	3060

1107

CCCTTTTCTT	GGAAAAATAA	TTTGATTTCAG	TATGCAGGTC	GGATTTCATAG	AAACTACAAG	3120
GATAAGTCTT	TGGTGCGTAT	TTTCGATTAT	GTGGATATTC	ATGTTCCCTTA	TTTAGAAAAG	3180
ATGTTTCAGA	AACGACAAGT	AGCTTATCGA	AAGATGGATT	ATCGTGTCAT	CGAGGGTGAG	3240
GAGAAACAAT	TCGTTTATGT	TGATAGTAGA	TATGAGAAGG	TGTTGAGAGA	GGACTTAGCA	3300
GGGGAAAGAC	AGGAATGTCT	GCTTATTTTA	CCTTATGTGC	ACCAGACAAA	ACTGATGAAT	3360
TTTCTAAAAG	AATTTAGGAT	TAGTCAAATT	GAGATATGTA	TACCAGAGAC	GGTTGCAAAT	3420
AAAGCATGGC	TAGACCAGTT	GAAGAGCCAG	AAAATTAAAG	TGTCCTTTTAC	TCAATCAAAA	3480
ATAGTAACGC	CTATTCTTTT	GGTGAATAAG	ACTATTGTTT	GGTATGGTGC	AATGCCATTA	3540
TTAGGGAAGG	TAGATGAGAT	GACCATATTA	CGTTTGGAAT	CAGCTAGTAT	AGTTTCTGAA	3600
CTAGTGGCAG	GTTTACGATA	GAGAAAATTT	TTAAAAATTT	CTATGTATGA	TTTTCATTTT	3660
TTTAGTGAGA	CTGTTGCCAT	TATCACATTC	GAATCACACA	AAATAAAAAA	ATTTTATATA	3720
GTACTTGACA	AATAGATTGA	AATATCATAA	AATAAAAAACG	GTTACAGAGT	TATTAATTAT	3780
TTAAGCTTCA	TGTCACCATT	AAAAATTGAA	ATAAAAGGAT	GTTATCACTA	ATACAAGTGA	3840
GCAGGAACCT	ATTTAATCAC	ATCAGAAGAA	GTTTCTTGAT	GTCTTTAAGT	AGGTTCCCTT	3900
TATTTTAAAA	GGGAAATTTT	ATGATCATAA	AACGAATACT	AAACCACAAT	GCCGTAATTG	3960
CGCAAAGTAA	AAAAGATATC	GATATTCCTC	TTTTTGGAAG	GGGAATAGCT	TTTGAAGAA	4020
AAACTGGAGA	TAAAGTAAAT	CCAATTGATA	TTGAGAAAAG	TTTTTTTCTC	AAAAATAGAG	4080
ATAATATGAC	CCGTTTACCA	GAGATGTTTA	TTAACGTTCC	TTTGGAGTTG	GTGTACATCA	4140
CCGAAAAAAT	AATTAACCTA	GGTAAATAA	CATTGGGTAA	TAATTTTGAT	GAAATTATCT	4200
ATATTAATTT	AACGGATCAT	ATTTCTTCGA	GCATAGAACG	TTATAAGAA	GGGATTATTA	4260
TTTCGAATCC	CCTACGCTGG	GAAATATCGA	AATATTATAA	AGAAGAATTT	GAACTTGCGA	4320
AAAGGGCTTT	ACAAATAATA	AAAAAAGAGT	TAGGTATTGA	ACTTCCAATT	GACGAAGCTG	4380
CATTCATAGC	GCTACATTTT	GTTAATGCTA	ATTTAGAAAA	TAATTTTCAA	GAGTCGTATA	4440
AAATCACTGA	AATAATTATG	GGAATTGAGA	AAATCATTCA	AGATTTCTAT	TGTACTGAGT	4500
TTAACCAAGA	TTCTATTGAT	TATTATAGAT	TCATAACTCA	TATGAAATTA	TTTGCCCATC	4560
GCTTGGTTGA	GAATACAAC	TATTGTGACG	ATGATGA			4597

(2) INFORMATION FOR SEQ ID NO: 176:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 3984 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

1108

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 176:

CGGCTTATTT ACTACTTGTT CCATCATATA TGGAAATATGC ATGAAACCTG CTCTCATATT	60
AGGGAATTTT TTATCCACTA AATAAAGAGC TTGGTACATC AAATGATTGC AAACAAAGGT	120
TCCTGCACTA TTGGATACAA CTGCCGGAAG TCCCTGTTTT TTGATAGCTT GTACCATCGC	180
TTTGATAGGT AAACACTAA AATAGGCCGA TGCTCCATCA ATACGAATCG GTGTATCAAT	240
TGGTTGATTG CCTTCGTTAT CAGGTATGCG AGCATCATCT TGATTAAATAG CCACTCGTTC	300
AGGTGTTAAG CCGGTCCTGC CGCCTGCTTG TCCAATACAA AGTACAGCAT CTGGTTGATA	360
TCGTAATATT TCTGCCTCTA AAACCTCTGA CGACTTATAA AAAACCGTTG GAATTTCTAC	420
CCAGCGAAGT TCAGCCCCAT TAATCTCAGA TGGTAATAAT TTTACAGCCT CCAAAGCTGG	480
ATTAATCTTT TCACCTCCAA AAGGATTAAA ACCTGTAACC AATATTTTCA TTTTATTTTC	540
CTTTACTAAA ATGCGAGAAA GTACATTAAG AATATGTGAA TAACAATCAT TACTAGAGCA	600
ACACCTGCTT GAGCCTTTAT AACGCCATTC TGATCTTTCA TATCCATCAA TGCTGCTGGT	660
AGAGCGTTAA AATTAGCAGC CATTGGGGTC AATAAGGTCC CACAATAACC TGCTGTCATG	720
GCAAGAGCAC CAGCCACAAT TGGATTAGCT CCCAGAGCAA ATACAAAGGG AACTCCAACA	780
CCTGCTGTAA TAACGGTGAA TGCTGCAAAA GCATTTCCCA TAATCATTTG GAATAGAACC	840
ATTCCAAGAA CATAGGCCAA AACTCCTATA AAGCGACTAT CTGAAGGAAC AATACCGCTA	900
ATCAGATGAG AGATAACATC ACCAACACCT GCTACAGTAA AAATAGCCCC CAAAGCCCCT	960
AATAATTGAG GAACAATCCC ACTTGTTGAA ACTTGCTGAG TCATTCGATT ATTTTCTGAT	1020
AACAGACTCT TAGGGTGACT ATTGGTAATC ACAAGAACAG AAATTGTAGC AAACAAGGCG	1080
GCAAGGCTAA TCGAAATCTT GCTAAATCTT GGAATCATTT GCGCTAAGAC CAACGCAAGT	1140
ATTGCCATCA GCATAACTGG AATAAAAATT TTATTTTCA ACCTGTTAGA TTCAATATTG	1200
GCTTTCATTT CATCTAAGGA TGGCAAGGTT CCGATACGGA CTTGCTTAAA CAATGTTAAC	1260
AGCGATAATA GGATTACAAT AATACCAATA CTCATATTG GCATATAGGA ACCACCTATA	1320
AACGTAATAG ACAATAGAGT CCAAAATGCA GATGTCCCAA GTCGAACTGG GTTTGTTTAA	1380
TCTTTATAAC TACAATAGGC TGTATGGAGA AATTGACAAC CAATCACAAT ATAGGTCAAC	1440
TCTAATAGTT GCTTTGCCAA CTCTGTCATT TTTGTTCTCC TCCCCTAGTC TTTTTTGATA	1500
TCAATTTTTT ATCAAATAAA TAATTATAAA TCCCCACTAC AATAAGTGTT ATAACAGCAA	1560
CAATAATAGA TGTAAGAAGCA ATCCCTGCAT AATTGCTTTC ATAGCCTAAC TGATCTAATG	1620

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TTCCCCCTAT CAAGAGGACT CCCCCAGCAC CTACAAACGT ATTTTGAGCA AAGAAATTTC	1680
CAAAATTTTC ATTCGCAGCC GCACGCGCTT TTATTGTCTC ATCTTCAACC TCTGTTAACT	1740
TTCTACCTAA TTGAGACTCT GCAGCTGCTT CTCCCATAGG TTGAACCAAA GGTCTGACAA	1800
ACTGAGGGTG TCCTCCTAGA CGAATTGAAA AGAAACCAGC TAACTCTCGA ATAAAGAAAT	1860
AAACTGTATA GAAGTTTCCA ACTGTCAGAC CTTTAATCTT TCGAATCAAA TCGATTGATC	1920
GTTGCTTGAG TCCAAAGGTT TCTGACAGCC CCACAAGAGG CAAGGTAACC ATAAAAATCG	1980
TGAGCACTCG CTGATTGCTA AATTCTTTTC CCAAAATCTC CAAAAATCA ACGAGAGAAA	2040
CACCTGAAAC TAAAGCTGTA ACCAAACCAG CTAAGACTAC TGTTGCAATT GTATCAAATT	2100
TTAAATAAAA ACCCACAACA ATGATTGCTA TTCCTATTAA TCTAATCCAC TCCATATCAA	2160
ACTCCTTTAT ATTCAAAATG ACAGTATTTT TAAAATTTTA TCAAGATCAA TACCATTCCCT	2220
TATTTAATGT GTTTTTCTAG TTCTTTTGG TATTGCTAT TGGATTCCAA TTTTCTTTT	2280
TGCCATTTT TAAAAACCTC GTTATATCT TTTGTTGTAA CAATATCTTT TTGCAATTC	2340
ATTCCTTTAA AGATATATGG ATCCCCCTTA ATACCAACTT GTGAGTATGG TTTTGAGAAT	2400
GGTACTACGT TACTTACAAC TGGAGAACCA CCAGATGAAG CTGTTGGCAT CAATAATGAA	2460
CTATCTGTCTG ACCAAGCTTG AGCTTTGGCA TATTTTTCAT ATCTTTTCTC TAGGTCAGTG	2520
GTCTCAGAAA CAGCATCTTC TAACAATTTT TTATATTAT CCAAACCAGG TTTAGCTACA	2580
ACATCCTTAT CTTTTCCTTT CGTAATACCA AGGTGTTTCA TGGCAGAACC AGATTTTGGA	2640
TCTATAATAT TCAAGTGAGA CGCTGGATCT TGATAGCTTG GAGCCCATCC TGTAAGTTTC	2700
AAATCATAGT CTTTTTGAGA AGGAGCAACA TTGCCGTATT TATCATTTTC CATCAAACCA	2760
TCAATAACAT TTCCAATAAC GTCTGTCTCT GATGTTTCGAG TCGCTATACT GTAGCCCAAT	2820
GATGCTGGAT CTACTGCATA GACATAAGAA AATGTTGTCG GTGCATCTGC TTCTTTATCA	2880
GTTTTTCAC AAGCCACTAA AATAGCTGAC GTGCTCAGGA CCACTCCTGC TGTTAAGAGC	2940
CACTTTCTCT ATTTTCATAA GAATCTCCTT TGGTTTATTT TAATCTACTT TTACAATCCA	3000
ACCTTCTGGC GCTTCAATAT CGCCAAACTG AATACCCGTC AATTCATTAT ATAATTTACG	3060
CGTCACAGGA CCTACTTCTG TTCTACTATA GAATACATGG AAATCATCAC CATGTTGAAT	3120
ACCTCCAATT GGAGAAATAA CCGCTGCTGT ACCACAGGCA CCTGCCTCTA CAAAACGGTC	3180
AAGATTATCA ATTGGAACAT CACCCTCAAT AGGAGTTAAT CCCAAGCGAT GTTCTGCCAA	3240
ATAAAGCAAG GAATACTTGG TAATAGATGG CAAGATAGAT GGAATCAATG GTGTTACAAA	3300
TTCATTATCA GCTGTAATTC CAAAGAAGTT AGCTGATCCG ACTTCTTCAA TCTTTGTATG	3360

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AGTTGATGGG TCCAGATAGA TAACATCTGA GAAATGACGT GACTTGGCCA TTTTTCCTGG	3420
TAAGAGACTT GCAGCATAGT TTCCACCAAC CTTAGCCGCA CCTGTACCAT TTGGTGCTGC	3480
ACGGTCGTAC TCATCCTGAA TCAAGAAGTT GGTGGGACC AAACCACCTT TAAAGTAATT	3540
TCCAACGGC ATAGCAAAGA TGGTGAAAAT GTACTCTTCT GCCGGTTTTA CCCCATAAT	3600
ATCTCCGACA CCAATCAAAA GAGGGCGAAG ATATAAGGTT CCACCTGTTT CGTATGGTGG	3660
TACGTATTCT TCATTGCGAC GGACAACCTG TTTACAAGCT TCTACAAACA TGCTGTGCG	3720
AACTTGTTGGC ATCAAGAGAC GGTCACATGT ACGTTGCAGA CGTTTAGCAT TTTCATCAGG	3780
ACGGAACAGT TGAACACTGC CATCCTTAGT ACGATAAGCT TTCAAACCTT CAAATGCTTG	3840
TTGTCCATAG TGAAGACTTG GAGAAGACTC TGAAATATGC AAAGTTGCAT CCTCTGTAAG	3900
CTCTCCTTGA TCCCATTTGTC CATTTTGTAA ATGAGCAAGA TAGCGATAAG GTAATTTTAT	3960
ATAGGAAAAA CCGAGGTTTT CCGG	3984

(2) INFORMATION FOR SEQ ID NO: 177:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8703 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 177:

TATCTAATTA TTGGTTTTTA TCGCTGACCT TGGCTATTGT TGGGGTTGTT TTACCTTGT	60
TGCCTACAAC ACCTTTCCTT TTGTTGTCTA TTGCTTGTTT CTCCAGAAGT TCCAAGCGAT	120
TCGAAGATTG GCTTTATCAT ACCAAGCTCT ATCAAGCATA TGTAAGCTGAT TTTCGTGAGA	180
CCAAGTCTAT TCGCGGTGAA CGAAAGAAAA AAATCATCGT CTCTATCTAC GTCTTGATGG	240
GAATTTCTAT TTATTTTGCA CCTCTTTTAC CAGTCAAAT CGGTCTGGGT GCTTTGACCA	300
TCTTTATTAC TTATTATCTC TTCAAGGTCA TTCCAGACAA AGAATAGTTA AAACAGTAGT	360
TATTTGCCTT GATAAAATTG AAAGCATATT CATAACAATA TGATATAATA AAATTGAAGT	420
AATATTCAAG GAGAATCAAA TGATTACGA ATTTGTGCT GAAAATGTGA CTTTACTTGA	480
AAAAGCGATG CAGGCTGGAG CTCGTCGGAT TGAACCTCTG GATAATCTAG CAGTTGGTGG	540
GACAACACCC AGCTATGGAG TGAATAAGGC AGCGGTTGAA CTGGCAGCTA ACTACGATAC	600
AACCATCATG ACCATGATTC GGCCACGTGG TGGTGACTTT GTCTATAATG ACCTAGAAAT	660
TGCTATCATG CTAGAAGACA TTCGTTTGAC TGCTCAGGCT GGAAGTCAAG GGGTTGTATT	720
TGGAGCTTTA ACTGCTGATA AAAAGTTGGA TAAGCCTAAT CTGGAAAAGT TAATTGCTGC	780

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ATCAAAAGGA ATGGAAATG TCTTTCACAT GGCCTTGTAT GAACTAAGTG ATGAAGATCA	840
AGCGGAAGCT ATTGACTGGC TCAGTCAAGC CGGTGTCCT CGTATCCTAA CTCGTGCTGG	900
TGTGTCTGGC GACTCCTTAG AAAACGTTT TGTTCACAT CACAGAATTT TGGAGTACGC	960
TAAAGGTAAA ATTGAAATTC TACCAGGTGG GGGGATTGAC CTTGAAAACC GTCAAACCTT	1020
TATCGACCAG GTGGGGGTAA CACAATTGCA TGGTACTAAG GTTGTTTTTT AAAAAATAGA	1080
AAGGAACTGC TAGCTTTGGG TAGCAGTTT CACTTATGTT TGAAATTTTT AAATCCTATC	1140
AATTTAATCA AGAAAAGGCT CATGATTATG GTTTTATAGA AAATAGCGAA GTCTGGACAT	1200
ATAGTTGCCA GATTTTGCAA GGTGACTTTG TCATGACTGT GTCCATCACT GCTGATAATG	1260
TGAACCTTCA AGTCTTTGAC CAAGAGACTG GTGACCTCTA TCCTCACGTT TATATGGAAA	1320
GCATGAGGGG AAGTTTGTG GGAATGTCC GTGAGGCTTG TCTGGAGATT CTTTACCAGA	1380
TTCGGAAGGC TTGTTTGTAT GTGCAAGATT TTATCTGTCA TCAGACTAAG CGTATCATGA	1440
CTCAAGTTCA GGAAAAGTAT GGAAACCACT TGGAGTATCT GTGGGAAAAA TCGCCTGATA	1500
CAGCTGTATT GCGCCATGAA GGCAATCAAA AGTGGTATGC CGTCTTGATG AAAATCTCTT	1560
GGAAATAAGCT GGAAAAGGC AGAGAAGGAC AAGTGAAGC AGTCAACCTC AAGCATGACC	1620
AAGTAGCTAA TTTGCTTCA CAAAAGGGGA TTTATCCAGC CTTCCATATG AGCAAGCGCT	1680
ACTGGATTAG TGTGTCCCTT GATGATACTT TATCAGATGA AGAAGTACTG GAATTGATAG	1740
AAAAAAGTTG GAACTTAACC TCTAAAAAT GAAATATTTT AATAATTTTC ATGAACTTTC	1800
AATTAGCTAA ATATTCTTTA CTGAAGAGAT TTTTAGAAAA TATAGGATTT ACCACACTAG	1860
AGGAATATGG TGCCATCTTC AAATACCTGA TTGAGAATGT CAAGACGGAT CGTCAGATCA	1920
TCTATTGCCC TCACTGTCTAT GATGACCTCG GAATGGCAGT GGCAAATAGC CTTGCTGCTG	1980
TCAAGAATGG TGCAGGACGT GTTGAAGGGA CTATCAATGG TATTAGGGAG CGAGCTGAAA	2040
ATGCTGCTTT GGAAGAAAT GCAGTGGCTC TCAATATTCG CCAAGATTAC TACCAAGTAG	2100
AAACCAGTAT TGTCTTAAAT GAGACCATCA ATACGTGAGA AATGGTTTCT CGCTTCTCTG	2160
GTATTCCAGT TCCTAAAAAC AAAGCCGTCG TTGGTGGCAA TACCTTCTCC CACGAATCTG	2220
GTATTACCA AGATGGAGTC CTTAAAAATC CTCTCACTTA TGAGATCATC ACACCTGAAT	2280
TGGTTGGTGT TAAGATTCTG CTTGGAAAAT TATCTGGTCG CCATGCTTTT GTTGAGAAAC	2340
TGAGAGAATT GGCCCTAGAT TTTACAGAAG AGGATATCAA ACCACTCTTT GCTAAGTTCA	2400
AGGCACTGGT CGATAAGAAG CAAGAAATCA CAGATGCAGA TATTCGAGCT TTGGTAGCTG	2460
GAACCATGGT TGAAAATCCA GAAGGCTTCC ACTTTGATGA TTTACAACCT CAAACTCATG	2520

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CAGATAATGA CATTGAAGCG CTCGTTAGCC TAGCCAATAT GGATGGTGAG AAAGTCGAAT	2580
TTAATGCGAC AGGGCAAGGT TCCGTTGAAG CAATCTTTAA TGCTATCGAT AAGTTCTTTA	2640
ACCAATCTGT TCGTTTGGTG TCCTACACTA TCGATGCGGT AACAGATGGA ATCGATACCC	2700
AGGATCGGGT TTTGGTCACT GTTGAAAACA GAGATACAGA AACCATCTTT AATGCAGCAG	2760
GGCTTGATTT TGATGTGTG AAGGCTTCTG CTATTGTCTA TATAAACGCT AATACCTTTG	2820
TTCAAAAAGA GAATGCAGGT GAGATGGGAC GCAGTGTTTC TTACCACGAT ATGCCTAGTG	2880
TGTAAAGGAG AAGGCTATGG CAAAGAAAAT AGTAGCTCTA GCAGGAGACG GAATTGGCCC	2940
AGAAATCATG GAGGTTGGTT TAGAAGTTCT GGAGGCTCTA GCTGAAAAA CAGGTTTGA	3000
CTATGAGATT GACAGACGAC CGTTCGGAGG TGCAGATATT GATGCAGCAT GACCTCCCTT	3060
ACCTGATGAA ACCCTTAAGG CAAGTAGGGA AGCAGATGCT ATCCTACTAG TAGCTATCGG	3120
TAGTCTCAG TATGATGGAG CAGTGGTTCG CCCTGAACAA GGCCTGATGG CTCTCCGTAA	3180
GGAACTCAAT CTTTACGCTA ATATTCGTCC TGTA AAAATC TTTGACAGTC TCAAGCATTT	3240
GTCACCACTC AAAGTGAAC GAATTGCTGG TGTAGACTTT GTCGTGGTGC GTGAATTGAC	3300
AGGCGGGATT TACTTTGGAT ATCATATTCT TGAAGAGCGC AATGCGCGTG ATATCAACGA	3360
CTATAGCTAT GAGGAAGTGG AGCGGATTAT TCGCAAAGCC TTTGAAATG CAAGAAATCG	3420
CAGAAAAATC GTTACTAGTA TCGATAAGCA AAATGTTCTA GCGACCTCAA AACTCTGGCG	3480
GAAAGTAGCT GAGGAAGTCC CACACCATTT CCCAGATGTA ACCTTGGAAC ATCAGCTGGT	3540
AGACTCAGCT GCTATGCTTA TGATTACCAA TCCTGCTAAG TTTGATGTTA TTGTAACGGA	3600
GAATCTTTTT GGAGATATTT TATCTGATGA ATCAAGCGTC TTATCTGGTA CACTTGGGGT	3660
TATGCCATCA GCCAGTCATT CTGAAAATGG ACCAAGTCTC TATGAACCTA TTCACGGTTC	3720
AGCACCTGAT ATTGCAGGTC AAGGAATTGC CAATCCTATT TCCATGATTT TATCAGTTTC	3780
CATGATGTTG AGAGATAGTT TCGGACGTTA TGAGGATGCA GAGCGTATCA AACGTGCTGT	3840
TGAGACAAGT CTGGCGGCAG GAATTTTAAC GAGAGATATA GGAGGTCAGG CTTCAACAAA	3900
GGAAATGACG GAAGCTATTA TTGCAAGGTT ATGAAGTTAG ACGAAAAAAT TACTCTAGTC	3960
CTTTTGATTT GGAATGTCAT CATTTTCTTG ATTTATGGTA TTGACAAATC TAAGGCAAGG	4020
AGAAGAGTTT GGCGCATCCC TGAGAAAAATC TTAATTATTT TAGCCTTTAC TTTTGGTGGT	4080
TTTGGTGCCT GGCTAGCAGG AATCATCTTT CACCACAAGA CTCGAAAATG GTACTTTAAA	4140
ATAGTTTGGT TTCTTGGGAT GGTGACCACA CTAGTAGCCT TATATTTTAT TTGGAGGTAA	4200
TGGATGGCAG GGTCTTCGAG GGAATACGCT GCTTGGGCTC TAGCGGACTA TGTTTAAAG	4260
GTCGTGATTG CAGGATCTTT CGGTGACATT CATTACAATA ATGAACTCAA TAATGGCATG	4320

1113

TTGCCAATCG	TTCAGCCTAG	AGAGGTTAGA	GAGAACTAG	CCCAGCTAAA	ACCAACCGAC	4380
CAGGTAAC TG	TGGACTTGGA	ACAACAAAA	ATCATCTCAC	CAGTTGAAGA	ATTACACCTTC	4440
GAGATAGATA	GCGAGTGGA	ACATAAACTC	CTAAATAGTT	TGGATGATAT	CGGTATTACC	4500
TTGCAGTATG	AAGAGTTGAT	TGCTGCTTAT	GAAAAACAAC	GACCAGCCTA	CTGGCAGGAT	4560
TAGAAAAAAT	AGAAAAGGAG	ATATAGTAAA	CTGAAATAAG	ATGTAAACAA	ATGAATTGGA	4620
GCTTAACATC	CATTTCCAGC	AATTTTTTAG	AACTACAGT	GGACTATTCT	GGATTCAACA	4680
CATTATAAAA	TTATGACAAA	ACACATTCAC	AAGAAGGCTA	CGACATTTTA	AAAGGTGAGG	4740
GCGGATGTAT	CGTTTGCCCT	ACTAAAGTTG	GTTACATTAT	CATGACCAGT	GACAAGGCAG	4800
GACTTGAGCG	TAAGTTCGCA	GCCAAAGAAC	GTAAGCGTAA	CAAACCAGGT	GTGTTCTCT	4860
GCGGTAGCAT	GGATGAAC TT	TGCGCTTAG	CGCAACTCAA	CCCAGAAATT	GAAGCATTCT	4920
ACTAAAAACA	TTGGGATGAA	GATATTCTTC	TTGGTTGTAT	CCTTCCTTGG	AAACCAGAAG	4980
CCTTTGAAAA	ACTCAAAGCA	TACGGGGATG	GCCGTGAAGA	ACTTATTACT	GATGTACGTG	5040
GTACTAGCTG	TTTTGTTATC	AAGTTTGGA	AAGCAGGTGA	ACAAATGGCT	GCCAAGCTTT	5100
GGGAAGAAGG	TAAATGGTTC	TACGCCTCAT	CTGCTTCAAT	GACAAAACGA	TTGAAACTCG	5160
CTATGAGCAA	GGTGTAA TGG	TGTCTATGGT	CGATAAGGAC	GGCAAACTCA	TCCCAGAACA	5220
AGGAGGAGCA	CGTTCAACTT	CACCAGCTCC	AGTTGTGATC	CGTAAAGGGC	TTGACATTGA	5280
TAAATCATG	ATGCACCTGT	CAGATACTTT	TAAC TCATGG	GACTACCGTC	AGGTTGAGTA	5340
TTATTAGGAT	AGAGAAGAAG	TCTAGTGTTA	TGAGATATTA	AAGTCCTTAA	CACTGGGCTT	5400
TTGTTTAGAA	TTTCTTTTCT	TTTCTATAG	GATATGGTAT	TCTATGTAGA	AAATATATGT	5460
TAATAAGTAA	TGCCAATATT	TAAACATCAT	TAGTAAAAGG	AGTTAGATTG	ATGAATAAAA	5520
GAAAAGTTAG	TTTAGAAGAT	TTTATAAAT	GGTATAGTCT	AAATAAAGAA	GAGTTATTAA	5580
ATAAGGCAAC	TGTTGGTGAA	AAGTTTAATG	ATAAATTAAA	AGAAGAGTTT	CTCCAGGAAT	5640
GGCCTTTGGA	TAGGATTTTA	ACAATGTCAA	TCGATGAATA	TGTAATAGGA	AAGGGACAGC	5700
AAAATAAGTC	TTTATGCTAC	GCTCTTGAGA	AGGGAAAATA	CAAAAATCTA	TTTCTTGGA	5760
TTTCTGGTGG	CTCAGCTTCA	AAATTTGGTA	TTTATTGGA	TAAAAAACA	AACAAATATA	5820
AAGATCAAGC	TAATAATGAG	ATTT CAGAGT	TGGATCAGCG	ATTTTCAAAA	TTAAATCAG	5880
ATTTGTATGA	AATTATCAAA	GAAGGTATTC	GTTTAACTT	TGAAAATCCT	ATTTTGTATA	5940
TGAAAAGATC	AACAAATGAA	TTTATTGCTC	GTTCTGCTAT	GGTGACAAAA	TTACTTTGTA	6000
TCTATACTGA	GGGAGATCCT	TTCTTTGGTG	TAAATATTAA	TAGTCAGAAA	GAATTTTGGA	6060

1114

ACCACTTTGT TTCTCAGACA AATCAAGGTG GACCTTATCT GCAAAATCAT AAAATAATTG	6120
AATGAGTGTC CAAAACCTTAT CCTGAGTTGG AGCCATCGAA ATTAGGAACT ATGCTTTTTG	6180
AGTATTCTAA GCTTTTATG GAAAAAAGG AAGACAATAG TACAATGGAT TCATCAAACA	6240
ATTTTCGTCA TCAATTAACCT CAATCTCTAT TAAAGTCTCC AAACCTCATC CTCCGCGGTG	6300
CTCCTGGCAC GGGAAAACT TATCTTGCTA AAGAAATTGC TAAAGAATTA ACGGATGGCA	6360
ACGAAGATCA AATCGGATTT GTACAATTC ACCCATCATA TGATTATACG GATTTTGTAG	6420
AAGGTTAAG ACCAGTATCA AATGGGGATG GAGCTATTGA GTTTAGGCTA CAGGACGGTA	6480
TTTTTAAAGA TTTTGTCTAG AAAGCAAAAG AAACCAATT GATTGGAGGA CAAGATAATT	6540
TTGATGAGGC TTGGGATTCT TACTTAGAAT ATATAAATGT TGCTGAAGAA AAAGAATATA	6600
TAACAAAAAC ATCTTACTTA TCTGTTAATA GTAGACAAAA TTTGTCACTA AATTATGATA	6660
GTGGTGTTCC AGGATGGTCA CTACCTAGCA AATATGTTTA CGAGTTGTAT AAAGATAAAA	6720
ATTATAATAA GCAAGAATAC TACAAAAGTG GTGGAAAAAC TGTCTAGAA ACATTGAGAA	6780
AGAGATTGG TTTGAAAGAC TATGTTTCCC CAACAGAAAT TGATACTGAT AAGAATTTTG	6840
TCTTCATCAT CGATGAGATC AATCGTGGG AGATTCTAA GATTTTGGC GAACTCTTTT	6900
TCTCTATCGA CCCCCTAT CGTGGTGAAA AAGGAAGTGT TTCTACCCAA TATGCAATC	6960
TACACGAAAC TGATGAAAAG TTCTATATCC CCGAAAATGT TTACATCATC GGAACATGA	7020
ATGATATTGA TCGTTCACTG CATACCTTTG ATTTTGCTAT GCGTCTCTGT TTTCTTTTG	7080
TTGAAGTTAC TGTCGAGGGT CAAGCTGGCA TGTGGATAA AGAGTTGAAT ATCCATGCAG	7140
AAGAAGCAAA AATTCGTCTA AGAACTTGA ACGCTGCTAT CGAAAATATT CAGGAATTAA	7200
ACAGTCATTA TCATATTGGA CCAAGTTATT TTCTTAAGTT GAAGGATGTA GATTTTGAAT	7260
ATGAATTACT CTGGTCTGAT TATATTAAAG CTCTCCTAGA AGACTACTTG CGAGGTTCTT	7320
ATGATGAGGT TGAAACTTTG GAaACTTTGA AAAAAGCATT TGATCTGACA AATAATGAGC	7380
AAAAAGATCA GGCAGTAGCT GATGACAATG AAGGCGATGA AAACGATGAT GCGGATTACT	7440
GATAATCAAC ACAAGATTAT TAAAGAAAAA TTTGTTGAAG AATATCCTAA ACTAAGCAAT	7500
CCTCTTTTAG ACAGAACCTT GGAAAGTCTA TCCCAAGATG AACGTATTTT CATTTTCCA	7560
AATGATTWGA CTCATACTCC TGATTTGGAT AAGGACCAAA AGATTTTGA AACAGTCAAT	7620
CAGAAAATCA AGACAGGGAA CGTGATTGGT TTTCTTGGAT ATGGTCAGGA AAGATTAACG	7680
ATTTCTCTAC GATTTTCTGA TGAGAGTAAT GACCACTTTT TGCATTATCT CTTAAACAAG	7740
GTTCTTCATA TCAATCTCAC TAGTTTAGAT GTTGCTTTGT CTCGTGAAGA GAGGCTTTAT	7800
CAACTTTTGG TGTATCTCTT TCCCAAGTAT CTACAAGCTG CTATTGAAA AGGTCTTTAT	7860

1115

AAGGAATATC ATCGATTTTC TCATAACGAC AGTCATGTTA AGGGAGTGAT TGATGTAAGA	7920
AACCATCTCA AGAAAAATCT TCCTTTCACG GGAAATATTG CCTACGCAAC GAGAGAGTTC	7980
ACCTATGATA ATCCCCTCAT GCAGTTGGTC CGTCACACTA TTGAATACAT TAAGAATCAG	8040
AAAAGCATTG GTCAAGGGGT ACTAGATAAT CTCTCAACTA GTCGTGAAAA CGTATCTGAA	8100
ATCGTGCGTG TAACGCCCTC TTATAAACTA GCTGATCGTG CTAAGATTAT TCGGGGAAAT	8160
CAATCTAAAC CTATACGTCA TGCATACTTT CACGAGTACA GAAACTTACA AGAACTTTGT	8220
CTGATGATCC TAAACCAAGA AAAGCACGGT TTAGGGTATC AAGATCAAAA AATCTATGGT	8280
ATTCTCTTTG ATGTTGCCTG GCTTTGGGAA GAGTATGTTT ACACCTTGTT GCCAAAAGGT	8340
TTTGTAATC CCAGAAATAA GGATAAGACG GATGGAATTT CAGTATTTTC TGTGGGAAA	8400
CGAAAAGTAT ATCCAGATTT TTATGACAGA GAACGAAAGA TTGTTCTAGA TGCAAAATAT	8460
AAAAAATGGA AATTGACTGA AAAAGGAATC AACCGTGAGG ACTTATTCCA GCTGATTGCC	8520
TATCTCTATA TTTTAAAGC TGAGAAGGCT GGACTGATTT TTCCTAGTAT GGAGCAGTCA	8580
GTAATAGTG AAATAGGAAA AGTAGCTGGC TATGGAGCTC AATTGAAGAA GTGGTCTATT	8640
CGAATCCCTC AGAATGCCTC ATTCTATAGT ACATTTTGTA AAATGATGGA AAATTCAGAA	8700
GAG	8703

(2) INFORMATION FOR SEQ ID NO: 178:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4854 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 178:

CATCACCAGT TTTAGATGGC TTTAACAGTG AAATTATTGC TTTTAATCTT TCTTGTTCCG	60
CTAATTTAGA ACAAGTACAA ACAATGTTGG AACAGGCATT CAAAGAGAAG CACTACGAGA	120
ATACGATTCT CCATAGTGAC CAAGGCTGGC AATATCAACA CGATTCTTAT CATCGGTTCC	180
TAGAGAGTAA GGAATTCAG GCATCCATGT CACGTAAGGG CAACAGCCAA GACAACGGTA	240
GGATGGAATC TTTCTTTGGC ATTTTAAAT CCGAAATGTT TTATGGCTAT GAGAAAACAT	300
TTAAATCACT TAACCAATTG GAACAAGCCA TTATAGACTA TATTGATTAT TACAACAATA	360
AGAAAATTAA GATAAACTA AAAGGACTTA GTCCTGTGCA GTACAGAACT AAATCCTTTG	420
GATAAATTAT TTGTCTAACT GTTGGGGGC AGTACACAAG AAAGCGCTTT AAAACCAGTA	480

1116

GACCTTTTCA TAAGGTTCGC TTGATGTACC AAGATGAGGC TGGTTTCGGT AGAATCAGTA	540
AACTGGGATC TTGTTGGTCT CCAATAGGAG TAGGTCCACA TGTCCATAGT CACTATATAC	600
GAGAATTTTCG CTATTGTTAT GGAGCTGTTG ATGCCCATAC AGGCGAATCA TTTTCTTAA	660
TAGCTGGTGG ATGTAATACT GAGTGGATGA ACGCCTTTTT AGAAGAGCTT TCACAAGCTT	720
ATCCAGATGA TTATCTTTTA CTCGTTATGG ACAATGCTAT ATGGCATAAA TCAAGTACCT	780
TAAAGATTCC GACTAATATT GGTTTTACCT TTATTCCTCC ATACACACCA GAGATGAACC	840
CATTGAACAA GTGTGGAAG AGATTCGTAA ACGTGGATT T AAGAATAAAG CCTTTCGAAC	900
TTTGGAAGAT GTCATGAATC AACTCCAAGA TGTCATACAA GGATTGGAGA AGGAGGTGAT	960
AAAGTCCATC GTTAATCGGA GATGGACTAG AATGCTTTTT GAAAACAGAT GAGTATAAAA	1020
TTGAATTGCT TATAAAAAAG CTCCATACAC TGGATGTGTA TAGAGCAATG GGGCTTTATT	1080
TGATATAGAG TTCTTGGTTT TTTAGGACAA TTTCTCGGAT ACTTGCAAAC TTTTAAAGTT	1140
TTTTGATTTC TTCTGGATGA GTGACGAGAG TGATAACATA ACCTTCCTTG CCCATACGAC	1200
CAGTACGGCC AGCACGGTGT GTGTAGGTTT CGCTATCTCT AGGAATATCA AAGTTTACGA	1260
CACATTCTAG GCTATCGATA TCAATTCAC GAGCCAAAAG GTCAGTTGCA AGAAGCAGGG	1320
TTAGTTGGTT ATCTTTAAAC TTTTCTAAGA TGATTTTCT AAATTTAACA TTAACATCAC	1380
TAGCGAGGGA AACAGCCAAT ATATCAGCAT ACTGTAGTTT TTCCTCGGCA TTCCAAGGT	1440
CTGACAGGCT ATTGAAGAAG ACTAGACCAC CCAATCCTC TACATGAGCC AGTTTTCGTA	1500
GCATATCCAC TCGATGACGT TGGTCTACCT GCATGTAGAA ATGCTGGATA TTGTCCAATT	1560
TTTGATCAGA GAGATCAATA GTCCGTGTAT TCGGCACAAT CTTTCTTGG TCAAAC TTGG	1620
TCGTGGCACT CATGTAGACC AGTTGGTGGT CACGAGGTGC GTAGTGAGTG ATTTTTCTA	1680
CAAAGTGAAT CTGAGAATCA TCTAGTAATT GGTCAAATTC ATCCAGGATG ATGGTTTCCA	1740
CATTTCATCAT CTTGATTTTT TTAAGTTTAA TGAGTTCAAA GATACGGCCA GGAGTTCCAA	1800
TCAGAATTTTC TGGCCCCCTT TTAAGACGTT CAATTTGTCT TTTCTGACTT GAACCTGAAA	1860
GGAAGAGTTG AGCAGTCAAT CCGATAGCTT CTGCCCACGT TTTACATACA TCAAAAATCT	1920
GTCCAGCAAG TTCCGTATTT GGTGCTAGAA TCAAGAGTTG TTGGGCTTTT TTCTTTTGTA	1980
GTCTGAGAAG ACTTGGTAGG AGATACGCTA GGGTCTTACC AGTTCCGTT TGGCTCACTC	2040
CTAGGAGGTT TTCTCCAGCA AGAAGGGGCT CAAATAGTTG AGTTTGAATG GGGGTGAATT	2100
CTTGGAACC GAGTTGGTCA CTCAGTTCTT GCCATTCACT CGGTAGTTTG GTTTTCATTT	2160
TTCTGCCTCA AATCTAATGC CAGCAGTCTG GCGCATGGTA TATAGTAGCT CATGAACAGA	2220
GCCTGCATCA TACAGCCAAG TTTGGTAGAG ATTCAGATCT GGTGCTGGA TCATGTGTGC	2280

1117

AAATGCAGCG	ACTTCCTCAG	TCATCGTATG	AGGAGCCTGT	TGGATAGGAA	GCTGGACTTG	2340
ATTTCCCTTGG	TGGTCGGTAA	AAATAGCTGA	GCGAATATGC	TCAATCGTGT	TGAGAGTCAA	2400
GGTTCCATCT	GTTGTATAAA	TCTCGCAAGG	AAGATTGGAA	GTGATGTTTT	TTCCAGCCTT	2460
GATGTGAACT	TGATAGTCTG	GGTAGAAGAG	GATACCATCT	CCATTTAGGT	CAATGCTATT	2520
GTCAAGCTGT	TGAGCATGGT	AAGTCGCGTC	ATTGGCTTTT	CCAAAAAGAC	GAACAGCAGC	2580
ATAGAGGGGA	TAAATCCCCA	AATCCATGAG	GGCTCCACCA	GCAAAACGGT	CTGAAAAGAC	2640
ATTTGGTGTT	TGTCCAGCCA	ACAAGTCAGG	CATCTTGGA	GAGTATTGG	CATAGTTGAA	2700
ATCTGCTCCT	AACACTTGCT	TATCTGCTAA	AAAGTTTTTG	ATAGTAGTAA	AGGCTTTCTC	2760
GTGGTAATTA	CGAGCTGCTT	CAAAGATAAA	ACAGTTATTT	TTTTCAGCTG	TTTGAATCAA	2820
ATCAAACCAT	TCTTGTGGTT	GAGAGACAGC	TGGCTTTTCG	AGAATAACAT	GTTTACCAGC	2880
AGACAAGGCA	GCTTTTGCTT	GAGCAAAATG	TAAGGAGTTT	GGACTGGCGA	TATAGACTAA	2940
ATCAAAGGAA	GATTTGAAGA	AGACTTCTAA	TTGATCGAAT	AGTTGGATAT	TCTGATAGCG	3000
AGAAGCAAAG	GTTGCTGCAG	TTTCTAGTTT	TCTAGAATAG	ATTGCGACCA	GTTGGTATTC	3060
TCCACTGGTA	TGGGCTGCTT	CTATGAAATG	ATGGCTGATA	GCGCCAGTTC	CGATGACACC	3120
TAATTTTAGC	ATAAATACTC	CTTTTCCGAT	TTTAAATCCT	TCTTTCATTA	TAACATAGAT	3180
AGACGGGACT	ATCCAACAGA	GAGGAGAAAA	TTTCAAATAA	GCTATTAGCT	TTCTTTCCG	3240
AATAAATAGA	TAGAAGCATA	GAATCTAGCA	AACCTAGATT	TAAAAATGTG	CTATAATAGA	3300
AGGAGGAAAA	GGAGGATTCT	CAGACATCTA	GGTATCAGCC	CAACTAATGA	TTTGTCAATT	3360
TATCCCGGAT	ATGCTGGACT	TGCCAGCAAA	AAATGTGACG	ATTTTGGAGG	GAAGTAACAT	3420
TCACGTCTTG	CCTTCCATGC	CCTACTCAGC	GTAAGATTTC	TATACTAGTA	TAGACGTCTT	3480
GGCGGAGTTA	GATAATGGAA	TCCAAGTTAT	CATCGAAATT	CAGGTTTCATC	ATCAGAATTT	3540
TTTCATCAAT	CGCCTATGGC	CTTATCTGTG	CAGTCAGGTT	AATCAAAACC	TAGAAAAAAT	3600
TCGCCAACGT	GAAGGTGATA	CCCACCAGAG	CTACAAACAA	ATCGCACTAG	TATACGCTAT	3660
CGCAATTGTC	GATAGTAATT	ACTTCTCAGA	TGACCTAGCT	TTTCATAGTT	TTATAGTAAA	3720
ATGAAATGAG	AACAGGACAA	ATCGATCAGG	ACAGTCAAAT	CGATTTCTAA	CAATGTTTTA	3780
GAAGTATAGG	TCTACTATTC	TAGCTTCAAT	CTACTAGAAA	TTCCATAGAT	AGAAAACTAC	3840
ATAATCTCTA	CAGATACGGA	TGTTGGAGTT	GATGTAAGAT	GCTTTGGCTT	GCTAGAGGAA	3900
TTGTGGATTG	CCAAATTGTA	TCATTGAAAT	TATTGCTCAA	ATTTGTTATG	ATATAAATAT	3960
GAATAAAAGT	AGACTAGGAC	GTGGCAGACA	CGGGAAAACG	AGACATGTAT	TATTGGCTTT	4020

1118

GATTGGTATT	TTAGCAATTT	CTATTTGCCT	ATTAGGCGGA	TTTATTGCTT	TTAAGATCTA	4080
CCAGCAAAAA	AGTTTGTGAC	AAAAGATTGA	ATCGCTCAAA	AAAGAGAAAG	ATGATCAATT	4140
GAGTGAGGGA	AATCAGAAGG	AGCATTTTCG	TCAGGGGCAA	GCCGAAGTGA	TTGCCTATTA	4200
TCCTCTCCAA	GGGGAGAAAG	TGATTTCTCT	TGTTAGGGAG	CTGATAAATC	AAGATGTTAA	4260
GGACAAGCTA	GAAAGTAAGG	ACAATCTTGT	TTTCTACTAT	ACAGAGCAAG	AAGAGTCAGG	4320
TTTAAAGGGA	GTCGTTAATC	GTAATGTGAC	CAAACAAATC	TATGATTTAG	TTGCTTTTAA	4380
GATTGAAGAG	ACTGAAAAGA	CCAGTCTAGG	AAAGGTTTAC	TTAACAGAAG	ATGGGCAACC	4440
TTTTACACTT	GACCAACTGT	TTTCAGATGC	TAGTAAGGCT	AAGGAACAGC	TGATAAAAGA	4500
GTTGACCTCC	TTCATAGAGG	ATAAAAAAAT	AGAGCAAGAC	CAGAGTGAGC	AGATTGTAAA	4560
AAACTTCTCT	GACCAAGACT	TGTCTGCATG	GAATTTTGAT	TACAAGGATA	GTCAGATTAT	4620
CCTTTATCCA	AGTCCTGTGG	TTGAAAATTT	AGAAGAGATA	GCCTTGCCAG	TATCTGCTTT	4680
CTTTGATGTT	ATCCAATCTT	CGTACTTACT	CGAAAAAGAT	GCGGCCTTGT	ACCAATCTTA	4740
CTTTGATAAG	AAACATCAAA	AAGTTGTCGC	TCTAACCTTT	GATGATGGTC	CAAAATCCAGC	4800
AACGACCCCG	CAGGTATTAG	AGACCCTAGC	TAAATATGAT	ATTACAAGCG	GGGT	4854

(2) INFORMATION FOR SEQ ID NO: 179:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 179:

TAAACAGGTG	TTAGGTGCTC	TAAACTATTA	AAATCTAAG	GAAATAAGGC	TACTTTTCT	60
GGGTCTTGTT	CATAGTAGGT	GTGGTTCCTT	TTTTCGAGTG	TAGCCCATAG	CTTTGAGCGC	120
ATAGTGGATG	GTAAGTAGT	GACAGCCAAA	TTCAGAAGCT	ATTCAGTCA	AATAAGCATC	180
TGGATTGTCA	GTAAGTAGT	TTTAAAGTCT	ATCTCTATCA	ACTTTTCTTG	GTTTGTTC	240
TTTACTTGG	TGGTTAGCT	CTCCTGTTT	CTCTTTTAGC	TTTAACCAGC	CATAAATGGT	300
ATTACGTGAG	ATTTGGAAAA	CGTGTGATGC	TTCTGTTATA	CTACCTGTTT	GCTCACAATA	360
AGAGAGAACT	TTTTTACGAA	AATCTATTGA	ATATGCCATA	AGAAGATTAT	ACCACATTGT	420
GTACTATTTT	TGGTTCATTT	TACTATATTT	CTAAACACTT	AGAAATAATA	AAACAAATTA	480
AATATTATTT	CTAAATATTT	GAAATAACA	TCTATTGTGA	TTATACTATC	TTTGAGGTAA	540
CTATTATGAA	CTATATCAAA	AGACCACATT	ATTTAGATTT	TTTAAGAAAA	CATCGTGACC	600

1119

GACCAATCAT CAAAGTTGTG AGTGGAGTTA GACGAGCTGG TAAATCTGTG CTTTTTCAAC	660
TCTATAAAGA GGAGTTACTA GCAACTGGGG TAGACGAGGA TCAGATTATA TTCATCAATT	720
TCGAAGATTT GAGTTACTAT GATCTGCGAC ATTTTCAAAC ATTATTCGCT TATATAAAG	780
ATCAATTAGT TAGCAAGAAA ACATACTATA TCTTTTGA TGAAATTCAA TATGTTGAAA	840
AATTTGAACT GGTAGCAGAT AGTCTATTCA TCTTAGCAAA TGTAGACCTC TATTTGACTG	900
GATCTAACGC CTACTTTATG AGTAGCCAAT TAGCAACAAA CTTGACTGGT CGGTATGTTG	960
AGATAGAGGT TCTTCCTTTG TCATTTGAAG AATATCTATC AGGTCAATCT CTCACAGAGA	1020
ATCTGAATAC AACAGAAATT TTAAACAATT ATCTCTTTAG TGCTTTCCCT TACTTATTGC	1080
AAACATCATC TTACGATGAA AAAATTGACT ATCTCAGAGG AATATATAAC TCCATACTGT	1140
TAAATGATAT TGTCAGTAGA TTGGGAAAAC CAAATCCTAC TATTATTGAG CGCATTGTCC	1200
GAACCCCTCT CAGTAGTACA GGTAGCTTAA TATCAACAAA TAAGATTTCG AATACCCCTAG	1260
TCAGCCAAAA TGTTTCAATA TCCCATAATA CTTTGGAAAA TTATTTGACA ACTTTGACAG	1320
ATAGTTTACT TTTTATTCC GTTCCACGTT TPGATGTAAA AGGTAGAGCA TTATTGCAAC	1380
GTTTAGAAAA ATATTATCCC GTTGATTAG GTTTACGACA TCTCTTATTA CCAGACCAGA	1440
AAGAAGACAT TAGGCATATC TTGGAAAATA TGGTATATTT GGAATTGAGA CGTAGATATT	1500
CACAAGTATA TGTGGTAAT TTAGATAAGT ATGAGGTTGA TTTTGTGTT GTAAGTGATC	1560
TTGGCCACTA CGCTTATTAT CAGGTCAGTG AAACAACACT TGCTCCAGAA ACACTAGAAA	1620
GAGAACTTAG ACCACTAGAA GCCATTAAAG ATCAATTCCC TAAATATCTA TTAACAATGG	1680
ATACGATTCA GCCAACAGCC AATTACAATG GAATCGAGAA GAAAAGCATT ATAGATTGGT	1740
TACTAGAAAA ATAGATAAAT ATAAATCATA CAGCTAATTA GATTTGCAAC AGTCTGTTAT	1800
CAATGATTCT ACCCAAATCC TAACAAGATA TAGTGAATTT CGAATACGCT ATATAATACG	1860
GACACTTGAA AATAGAAATT GGGGATGAAA GGGGATCTAT AATTTCTGGA AGTACTATCA	1920
AAAATTAATA TCATAGTCTT ATTAGAGAAT AGCATCACCC ACTTTCTCAA ATAAGATTAA	1980
ATTGTAACTG AATTATAATG AAAAAGAGAC TGAGCAATCA GTCTTTAAAA TCAGAAAAGC	2040
GCATAGTATC AGGTATTGAA CAACCTTGAT AATATGCGTT TTATTATGGA AATATTTGCT	2100
TCATTTCTC CTGAAATAGA GCTTTTGCTA TCCTATTTT CTCTATTTCT AATGATTAC	2160
TTCAACTTCT TACCTCTTGG GAAAAA	2186

(2) INFORMATION FOR SEQ ID NO: 180:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3236 base pairs

1120

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 180:

GTCACACGTT TGACTTCACG TATTTTCATAA GTATAAACTT TATTTTATC GGTAGATAA	60
ATCTTCATGC CATTTTTCAGC ATTATCTAAA GGAGAAAATA ACATTTTATT AGCATTATCA	120
ACACCAAAGA TATGGTGACT AGCTAGACTA TAATTTCCCTT CTCCCATTAC TTGCTCGCGT	180
TTCATTGTAC CAGCTCCGTA GAAGAGATTA ACATTATCAA GTCCTTTAAA AATCGGCAAA	240
TTCATTTCCA ATTCAGGAAT TGCAATTCCC CCAATAACTG GTAATTTTGT AGCATCCCAT	300
TGAGAAGTTA GAACAGCTTC CGAAGAGATA GCTTTGACAG AATCAAAGTC AAAATTGCCT	360
TCTGTATCCT GATTTTCTTC TAATTTTCTT TTTGATACCT GGCTAACTTG ATACTTATTG	420
GTATTCAGA CTATGAAAT ATTTCGAATT TGAGTATTAA AAATCAAAGC CAGTGACAGT	480
AATATCAGAA ATCCTGCTAG GATATTTGTC AGCAGATTTT TTCGCTTGT TTTCTTTTA	540
TTATTTTTC GAGACATTAT GCTTCACCTT CTGTTTCGTT TTCTGTCCA ACTTCTTCTT	600
TTTCTGCCAC CGCAACCGTT GTGAAAGTCA CTATCTGAGC ATCTTGATCC AGGCGCATT	660
CTTTAACTCC CATAGTTGCA CGTCCCTGTT GTGAAATATT GGCAAGATTG GTTCGAATCA	720
TGACACCTCT ATCACTGATA ATCATCAAAT CCTCATCCCC TTGAACAGTC ATAAGACCGG	780
CCAGCAAGCC ATTTTTCG GTAATTTTAG CTGTCTGCAT TCCCTTACCA CCACGACCTT	840
TTGTTGGGTA TTCAGTAGCG ACTGTACGCT TACCATATCC TTTTCTGTG ATAATAAGAA	900
CCTCATCTTG ATCAGTAATC AAGCTGGCAC CAACAACGT GTCTCCTTCA CGAAGGTAA	960
CACCTTTCAC ACCAGTGGCG ATACGGCTCA TACCACGAAC GGCTGATTGA TTAAAGCGAA	1020
CTGCATAACC AAACCTGGTA CCAATGATAA TATCCATATC TCCTTCTGCC AACAGACAT	1080
TGATTAACTC ATCTTCATCC TTTAAATTCA GCGCTTTGAG ACCATTTTGA CGAATATTGG	1140
CAAACCTCCT AACACTGGTT CTCTTCACAA TACCGTGACG GGTGTAAAG AAGAGATAAG	1200
CATCATCACT GCGATCAGAC TCAACATTGA TAACCGTCTG AATACCTTCG TCTTCATCCA	1260
ATTTCAAGAG ATTGACTACT GGTAGCCCTT TGGCAGTCCG ACCATACTCA GGAATTTTAT	1320
AACCTTTAAG ACGATAGACA CGTCCCTTGT TTGTGAAGAA GAGCAGATGA TCATGGGTGC	1380
TAGTTGACAC TAACTCACGA ACAAAGTCAT CATCTTTCAC TCCCGTTCCT TGGACACCAC	1440
GACCCACAG TTTTGTAGCA GTGAACCTCGT CCTGATCCAA ACGCTTAATG TAGCCTCTGT	1500
TAGAAAGGGT AATCAAGACA TCCGATTCTT CAATCAAGTC CTCATCCTCG AGACTCAAGA	1560

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CCTGTCCAAT	CATCAACTCT	GTACGGCGCT	TATCAGAAAA	TTTACGTTTA	ACTTCATCCA	1620
ATTCGTCTTT	GATAATTTGA	GAAACACGTT	CAGGCTTAGC	AAGAATATCT	GCTAAATCCG	1680
CAATCAGAGC	CAAGAGGTCA	TCATACTCAG	ATTGAATCTT	ATCGCGTTCC	AAACCTGTCA	1740
AACGACGAAG	ACGCATATCA	AGGATAGCTT	GACTTTGACG	TTCAGAAAGC	TTAAACTTGC	1800
TCATCAACTC	AGCTTGAGcT	TCCGCATcCG	TTTCACTAGC	ACGGATGATA	CGAATCAyTC	1860
GTCGATATGG	TCTAGCGCAA	TCAAGAGACC	TTCTAAGATA	TGAGCGCGCG	CTTCCGCTTT	1920
TTCTTATATCA	AAACGTGTAC	GACGAACAAC	CACCTCTTTT	TGGTGCTCGA	TATAAGCATC	1980
CAAAATCTGA	CGAAGAGACA	AAATTTTCGG	TATACCATTT	TGGATAGCGA	GCATATTGAA	2040
ACCAAAATTG	GTTTGCAATTT	GGGTCAATTT	GAAGAGGTTA	TTGAGAATAA	CATTGGCTGA	2100
GGCGTCGCGC	TTGACTTCAA	TAACAAATCG	AACACCTTCA	CGGTTTGACT	CATCACGTAC	2160
TGCTGTGATA	CCCTCAATGC	GTTTTCCTG	AACCAAGCGA	ACAATATGCT	CATGCACCTT	2220
GGTTTTATTG	ACCATGTAAG	GAAATTCTGT	TACAACGATA	CGCTCACGAC	CAGTCTTAGT	2280
CGTTTCAATC	TCTGTACGAG	AACGTAGGAC	AATCGAACCT	TTACCTGTTT	CATAAGCCTT	2340
ATGGATACCT	GATTTCCCCA	TGACAAGAGC	ACCAGTTGGA	AAATCTGGTC	CAGGCAAGAC	2400
TTCCATCAAG	TCCTTGGTAG	TCACTTCAGG	ATTATCCATG	ACCAACTTCA	CTGCATCAAT	2460
gGTTTCACCC	AGATTATGAG	GTGGAATATT	GGTTGCCATC	CCAACCGCGA	TACCAGTTGC	2520
TCCATTAACC	AAAAGGTTTG	GAAAACGCGC	TGGCAAGACC	AAGGGTTCCC	GTTTATTGGC	2580
ATCATAGTTA	TCAACGAAAT	CAACTGTATT	TTTGTTGATA	TCACGAAGCA	TTTCCAGAGC	2640
AATCTTGCTC	ATACGTGCCT	CGGTATAACG	TTGAGCGGCA	GCACTATCTC	CATCCATGGA	2700
ACCAAAATTC	CCATGACCAT	CTACAAGCAT	GTAACGGTAG	CTCCACCATT	GAGCCATACG	2760
GACCATGGCT	TCATAAATAG	AGGAATCCCC	GTGTGGGTGA	TATTTACCCA	TGACATCCCC	2820
TGTAATACGA	GCAGATTTTT	TATGGGGTTT	GTCTGGGGTC	ACACCCAATT	CATTTCATTCC	2880
GTAGAGAATG	CGACGGTGAA	CAGGTTTTAA	GCCATCTCGA	ACATCAGGAA	GAGCTCGCGC	2940
TACGATAACA	CTCATGGCGT	AGTCGATAAA	ACTTGCCTTC	ATCTCCTTTG	TCAGATTGAC	3000
ATTCATAAA	TTTTTATCCT	GCATTAATAA	ATGCCTCATT	TCACAATTAG	TAAGTAACAA	3060
CATTATACCA	TAAATTCCCA	TCTATTTTCA	CCTCTAAACC	ACTAAAACGT	TTACATCGAG	3120
AACTATAAGG	CATATTCGTG	ACAAAGTTTT	TAAAAAGTGA	TAGAATGAAG	TTGTCTAGGG	3180
AAAACCCCTA	ATAGAATAAG	GAGATGGTTA	nACAATGACT	CTGACTAACA	CACAAA	3236

(2) INFORMATION FOR SEQ ID NO: 181:

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(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8651 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 181:

AGGTCCTGAA GTATTGGAAC AGGAAGGTCA AGAGTTTTTG GAACATTTCA AAAA	60
CTCTAGTGAAGT GAAGTAGTAG CCATCTCAGG TAGTCTGCCA GCTGGCCTTC	120
CAGTTGATTAA CTATGCGAGC TTGGTAGAAC TTGCTAATCA AGCTGGCAAG CATGTAGTCT	180
TGGACTGCCTC AGGTGCAGCA CTTCAGGCTG TTCTTGAATC ACCCCATAAA CCAACAGTCA	240
TCAAACCAAA TAATGAAGAA TTGTCTCAGC TTCTTGGAAG AGAAGTTTCT GAGGATTGG	300
ATGAATTAAA AGAAGTACTT CAAGAACCTT TGTTCGAGG GATTGAATGG ATTATCGTTT	360
CACCTGGTGC CAACGGTACT TTGCGCAAC ATGGTGACAC TTTCTACAAG GTAGATATTC	420
CTAGAATTCA GGTGGTAAAT CCTGTTGGAT CTGGAGACTC TACTGTGGCA GGAATTTCTT	480
CAGGACTTCT TCACAAAGAA TCGGATGCAG AATTACTCAT CAAGGCAAA GTCTTGGTA	540
TGCTCAATGC TCAAGAAAA ATGACTGGTC ATGTCAACAT GGCCAACTAT CAAGCTCTAT	600
ATGATCAATT AATAGTAAAA GAGGTATAAA ATGGCTTTAA CAGAACAAA ACGTGACGC	660
TTAGAAAAAC TTTCTGATGA AATCGGTATC ATCTCAGCTC TTGCATTGA CCAACGTGGT	720
GCTTTGAAAC GCCTCATGGT TAAACACCAA ACAGAAGAAC CAACTGTGGC CCAATGGAA	780
GAACTTAAAG TCTTGGTAGC AGATGAATTG ACTAAATATG CTTTCTCTAT GCTTCTTGAC	840
CCTGAGTATG GACTTCCAGC AACTAAAGCT CTTGATGAAA AAGCTGGTCT TCTCCTTGCT	900
TATGAAAAAA CAGGTTATGA CACAACAAGC AAAAAACGCT TGCCAGACTG CTTGGATGTT	960
TGGTCTGCAA AACGTATTAA AGAAGAAGGT GCAGATGCAG TTAAATTCTT GCTTTACTAT	1020
GATGTAGATA GCTCAGACGA ACTCAATCAA GAAAAACAAG CCTACATCGA ACGCATCGGT	1080
TCTGAGTG'G TGGCTGAAGA TATCCCATTC TTCTTTGAAA TCCTTGCTTA CGATGAAAAA	1140
ATTGCGGATG CAGGTTCTGT AGAATACGCT AAAGTAAAAC CACACAAAGT TATCGGCGCT	1200
ATGAAAGTCT TTTCAGACCC ACGCTTTAAC ATTGATGTTT TGAAAGTTGA AGTTCCTGTT	1260
AACATTAAAT ATGTTGAAGC KTCGCTGAAG GTGAAGTAGT TTATACACGT GAAGAAGCAG	1320
CAGCCTTCTT CAAAGCGCAA GATGAAGCAA CGAACTTGCC ATACATCTAC TTGAGTGCTG	1380
GTGTATCAGC TAAACTCTTC CAAGATACTC TTGTATTTGC TCATGAATCA GGTGCGAACT	1440
TTAACGGAGT TCTTTGTGGC CGTGCTACAT GGGCAGGATC AGTTGAAGCT TACATCAAAG	1500
ATGGTGAAGC	

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AGCAGCTCGC GAATGGtCGC ACAACTGGAT TTGAAAACAT TGACGAACTC AACAAAGTTC	1560
TTCAAAGAAC AGCAACTTCA TGGAAAGAAC GCCTGTAAGA AAGTCCTCCT AGTTTAGGAA	1620
CATGAATCTA AAAAAATTTA AAAAAAGTTG TATGTAAAGG CTTACAAAAT AACTTACTTG	1680
TGCTATACTT AAATCACAAG TTAATATGAA TTAGAAAGTA ACTATATGAA GTATAATAAA	1740
AATAGGATAT AGTTTATTTT ACGAGCTAGG AAGGAAAAAT ACGGAAACAA TATTGCCAGA	1800
ATAAACTATA TTTAGATGCA CATTTTCATTC ATTGTTTAT AAAAGGAGAA GATAAACGGC	1860
TACTAAAAAG AGTTTAAAG CGTTAGTTGT AGGACTAGGT ATTGTTTCAA TATTCTTATC	1920
AGCCTTACCT ATGGTTAGTG GTTCTGTATT TGCAGATAGT GCCCTAACTA CAGTAGATAA	1980
AGCAATGAT ATTGTTTGA ATGTGTGATG GAATAAATTT TATAATGTTT CGGTTTCAGA	2040
AGATATTGTA AATGCTGGT AAATTTTGGA AGATTATTTT TATGTAGATA AATTGGA	2100
TATAAATTTA AAAGGCACTC CTGAAGAGTT AGCAAAAAAT ATTGGTATTT CTGTACAAGA	2160
AGCAAGTTTG ATGTATGGAG CTGTAAAAGA GTTACCCAAC GTTTACGAAA GAGGTCCTGT	2220
AGGTTTTCGT TTCAATCTTG GTCTCAAGT GAGGGGATG GGTGGCTGGG CTGCTGGAGC	2280
TTTCGCTACT GGATATGCTG GATGGCATT GAAACAATTT GCGGTTAATC CTGTTACATC	2340
TGGATTTGTT GCTGTAATA GTGGTGCAT TGGCTGGGCT GTAAAACTG CTGTAGAAAA	2400
TTATTGGACA GTTGCTGTAG CTACAGTAGA AGTGCCGTTT GTGAACCTTG TTTACACCAT	2460
AGATTACCT TAGAGGTAT TTCTTTATGA ATCATTCTTT TAAAAAATA ACTGTATTTT	2520
GTTTATAGT TTCTGTGTT CTTTGTAT TAGACTTAAT GAATTTTAAA AATGTAGCTA	2580
CTTTTTTATT TTTCTGTCTT CCTGTTTTTG TTTGATTTA CAAAAATAA TAAAAACAGA	2640
GCCTCTGTTT GATGAATTTT AGAACATAGT TAAGTTTAA AAAAGTTGT ATGTAAAGGT	2700
TTACAAAATA ACTTACTTGT GCTATACTTA AATCACAAGT TAATACAAGG TGAGTGTAC	2760
TAAGTAATAT TAGGCATGAT CACAGGTGAA TTAGAAATCA GCTGATTTTC TAGTTCATTT	2820
GTGGTCATTT TTTGTACTTA TATACCTTTA AGATATAAAA GGAGGTGAC ATGTATCGAA	2880
TTCTAAATCC AATGAATCAC AATGTCTCGC TTGTCAGAAA TGATAAGGGA GAAGAGGTGA	2940
TTGTAATTGG TAAGGGAATT GCATTCGGAA AGAAGAAGG GGATTTGATT GCTGAAAATC	3000
AGGTTGAGAA AATCTTTCGG ATGAAGACCG AAGAGTCCAG AGAAAACTTT ATGGCTCTTC	3060
TCAAAGATGT TCCGCTTGAT TTTATCACAG TGACCTATGA AATCATTGAT AAGCTATCAA	3120
AGAAATATCA TTATCCGATT CAAGAGTATC TCTATGTAAC CTTGACAGAT CATATTTACT	3180
GTTCTTATCA AGCTCTAACT CAAGGAAGGT ACAAGGATAG TAATCTGCCA GATATTTCCG	3240

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CTAAGTATCC TGTGCTTTT CAAATCGCAA ATGAAGCTTT TGAAATTTAC CGTCAGAAGC	3300
TAGCAGATCA TTTTCTGAG GACGAAATTA TTCGGATTGC TTATCATTTT ATTAATGCTG	3360
AAGGTGAAAA TGAAGTGGAA CTTGTGGAGT CGATTGATAA GAGGAAAGAA ATTCTCAGGA	3420
ATGTTGAAGA AGTTTAAACG GACTATGCAA TCAACGAAC TAAAAAGAAT AACCATTTCT	3480
ATGATCGCTT TATGATCCAT TTGAATTATT TCTTGGATTA TTTAGACAGA TCTAGAGATG	3540
ATAACCAATC ACTTCTGGAT ATGGAAGATC ATATTAAACA ATCCTATCCA AAAGCCTTCG	3600
AGATTGGTTC CAAGATCTAT GATGTGATTA CGCAACATAC GGGTCTTGAT TTGTATAAAA	3660
GTGAACGAGT TTATCTAGTT CTACATATCC AACGTTTATT GTCATAAAAA TTTATTTAAA	3720
ACTATATAAG GAGAATTCTA TCATGAATAG AGAAGAAGTA ACATTGTTAG GTTTTGAAAT	3780
CGTAGCCTAT GCTGGCGATG CTCGTTCAAA ACTATTGGAA GCCTTGAAGG CTGCTGAAGC	3840
TGGTGATTTT GAAAAAGCGG ACGCTCTGGT AGAGGAAGCT GGTAGCTGTA TTGCAGAGGC	3900
TCACCACGCG CAAACAAGTC TATTGACTAA GGAAGCTTCA GGTGAGGACT TGGCTTATAG	3960
TGTAACCATG ATGCATGGCC AAGACCACTT AATGACAACT ATCTTGTTAA AAGATTTGAT	4020
GCATCATTTA ATTGAACCTT ACAAGAGAGG AGTTCAATAA TGAATAAACT AATTGCATTT	4080
ATCGAGAAAG GAAAGCCTTT CTTTGAAAA CTATCTCGTA ATATCTATCT TCGTGCTATT	4140
CGTGATGGTT TCATTGCAGG TATGCCTGTT ATTCTCTTCT CAAGTATCTT TATCTTGATT	4200
GCCTTTGTAC CAAACTCATG GGGCTTTAAA TGGTCTGATG AAGTTGTAGC CTTTCTGATG	4260
AAACCTTATA GCTATTCTAT GGGTATTCTG GCTCTCTTGG TAGCTGGTAC AACAGCTAAG	4320
TCATTGACTG ACTCAGTAAA CCGGAGCATG GAAAAACCA ATCAAATCAA GTATATGTCA	4380
ACATTGTTGG CAGCAATTGT TGGTTTGTG ATGTTGGCAG CTGATCCTAT CGAAAGTGGT	4440
CTAGCTACTG GATTCTTGGG GACAAAAGGT TTGCTTTCAG CCTTCCTTGC TGCCTTTGTT	4500
ACTGTAGCCA TCTATAAGGT TTGTGTTAAG AACAAACGTA CTATTGCTAT GCCTGACGAA	4560
GTTCCACCAA ATATCTCACA AGTCTTTAAA GATGTGATTC CATTCACTCT ATCTGTTGTT	4620
TCTCTTTATG CTCTTGACTT ATTAGCACGT TATTTTGTG GTTCTAGTGT GGCAGAATCA	4680
ATCGGTAAAT TCTTCGCACC ACTCTTCTCA GCAGCAGACG GATACCTTGG TATTACCATT	4740
ATCTTTGGTG CCTTGCCCTT CTTCTGGTTT GTTGGGATTC ATGGTCCATC TATCGTTGAA	4800
CCAGCTATCG CAGCTATTAC CTATGCCAAT GCCGAAGTTA ACTTGAACCT TCTCCAACAA	4860
GGGATGCATG CAGACAAGAT TCTTACTTCT GGTACACAAA TGTTTATCGT TACCATGGGT	4920
GGTACAGGTG CGACATTGGT CGTTCCATTT ATGTTTCATGT GGTGACAAA ATCGAAACGT	4980
AACCGTGCAA TCGGACGTGC TTCAGTAGTT CCTACCTTCT TCGGTGTAAT TGAACCAATC	5040

1125

TTGTTTGGTG CACCTCTTGT TTTGAATCCA ATCTTCTTCA TTCCATTTAT CTTTGCTCCA	5100
ATTGCAAACG TATGGATTTT CAAATTCCTT ATTGAAACTC TTGGAATGAA CTCATTCACT	5160
GCTAATCTAC CATGGACAAC TCCAGCTCCA CTAGGTCTAG TTCTTGGAAC TAACTTCCAA	5220
GTGCTATCAT TCATTCTTGC TGCCCTTCTA ATCGTGGTTG ACGTTGTCAT TTACTATCCA	5280
TTCCCTTAAGG TCTATGATGA ACAAATTCCT GAAGAAGAAC GTTCAGGTAA GTCTAATGAT	5340
GAATTGAAAG AAAAAGTTGC TGCAAACTTC AACACTGCAA AAGCGGATGC TATTCTTGAA	5400
AAAGCGGGTG TCGATGCAGC ACAAATACC ATCACTGAAG AAACAAATGT CCTCGTTCTC	5460
TGTGCAGGTG GAGGAACAAG TGGTCTCCTT GCAAATGCTT TGAATAAGGC AGCAGCAGAA	5520
TACAAATGTCC CTGTGAAAGC AGCAGCAGGC GGCTATGGTG CTCACCGTGA AATGTTACCA	5580
GAGTTTGATC TTGTTATCCT TGCCCTCAA GTTGCTTCAA ACTTTGAAGA TATGAAAGCA	5640
GAAACAGATA AGCTCGGTAT TAACTAGCG AAAACAGAAG GCGCTCAATA CATCAAATTA	5700
ACTCGTGATG GAAAAGGTGC TCTTGCAATC GTACAAGCGC AATTCGATTA AGGCTAGAGA	5760
CTCTGAAATA GTCTCCCATC GTTACGGAAA TCGCTATGGC GAATTTCCCTA TTATTAATTC	5820
GTCGGTAAAA AGATATCGTT TTTACCTCCT CATGTCACAA TTCGGTGACT TGGTACAAGA	5880
AGTGAGATGG AGAAGGATGG CTCACTGACT CCTCTCCTCT CACTTTTACT TTATTTAAAT	5940
CAAGAAATAG GTGAAAAAAA TGACAAAAC ACTTCCAAA GACTTTATTT TTGGTGGCGC	6000
AACAGCTGCT TATCAAGCAG AAGGTGCTAC ACATACTGAT GGAAAAGGAC CAGTTGCTTG	6060
GGATAAATAT CTTGAGGATA ACTACTGGTA CACTGCCGAA CCAGCTAGTG ATTTTACAA	6120
TCGATATCCA GTTGACCTCA AGCTAGCAGA AGAGTATGGT GTCAATGGTA TTCGAATTC	6180
TATTGCTTGG TCACGTATTT TCCCGACTGG TTACGGCCAA GTAAATGCTA AAGGTGTTGA	6240
GTTTTATCAT AATTTATTTG CAGAGTGTC CAAACGTCAT GTTGAGCCTT TTGTAACCT	6300
TCATCACTTT GACACGCCAG AAGCTCTCCA CTCAAATGGA GACTTCTTAA ACCGTGAAAA	6360
TATCGAACAT TTTGTAGACT ACGCTGCCTT CTGTTTGTGA GAATTTCCAG AAGTAACTA	6420
TTGGACAACC TTTAATGAAA TTGGACCAAT CGGTGATGGT CAATATTTGG TTGGGAAATT	6480
CCCTCCAGGT ATCCAGTACG ACCTTGCCAA AGTCTTTCAA TCACACCACA ATATGATGGT	6540
GTCTCATGCA CGCGCGGTAA AATTGTACAA AGAGAAAGGC TATAAAGGGG AAATTGGTGT	6600
TGTTACAGCC CTGCCAATA AATATCCTCT AGATCCTGAA AATCCAGCAG ATGTTCTGTC	6660
AGCTGAGTTG GAAGATATCA TCCACAATAA ATTCATCTTA GACGCAACTT ATCTAGGTCG	6720
CTATTCAGCT GAAACCATGG AAGGTGTCAA CCATATCTTA TTAGTCAATG GTGGTAGTTT	6780

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GGATCTTCGT	GAAGAAGATT	TTACAGCATT	AGAAGCTGCA	AAAGACTTGA	ATGATTTCCCT	6840
AGGAATCAAC	TACTATATGA	GTGACTGGAT	GGAAGCCTTT	GATGGAGAAA	CTGAAATTAT	6900
CCATAATGGT	AAAGGTGAAA	AAGGAAGCTC	TAAGTATCAA	ATCAAAGGTG	TTGGTCGTCG	6960
TGTAGCTCCT	GACTATGTAC	CACGCACGGA	TTGGGATTGG	ATTATCTACC	CTCAAGGTTT	7020
GTATGACCAA	ATCATGCGTG	TGAAGAAAGA	TTATCCTAAC	TACAAGAAGA	TTTACATCAC	7080
TGAAAATGGT	CTCGGCTATA	AAGATGAGTT	CGTTGATAAC	ACTGTTTACG	ATGATGGTCG	7140
TATTGATTAC	GTGAAGCAAC	ACTTGGAGGT	TTTATCTGAT	GCGATTGCAG	ATGGAGCTAA	7200
TGTAAGAGGT	TACTTCATTT	GGTCATTAAT	GGATGTCCTC	TCATGGTCAA	ACGGTTATGA	7260
GAAACGTTAT	GGTCTCTTCT	ACGTAGATTT	TGAAACTCAA	GAACGTTATC	CTAAGAAATC	7320
AGCTCACTGG	TACAAGAAAG	TAGCGGAAAC	TCAGATTATA	GACTAGTAGA	ATTAGTCATT	7380
AGATATAGAA	TTTTAGTGAG	TCAAAAAGAT	GTTCAAAGAT	TTTATCCAAT	CTATTTATGA	7440
AAAAAGTTT	ATATTATAAA	TTTCGAAAAA	TGCTCTCAAA	TACCGTGTTT	GACGAGTGAA	7500
GAATTGAAAA	GTCTTGAAAA	ATGGTATGTC	TCGACTGGTA	AAGAATGGAT	TTGTCATFCA	7560
GATGATGAGC	TGGAAGAATT	TAAAAATCTA	TTTTTAAATT	TTATCAATCC	TGAAGAATGG	7620
GATACTATCT	CCTTTGATTC	AGATTTTATG	CCGTTTCAAC	AATCGTAACC	AATTTCTCAA	7680
AAAAGTTAAA	TCTTATATTT	AGTACTCTGT	AAAACCTTTA	TCTAATCACG	TTGCTTATAC	7740
TCAATGAAAA	TCAAAGAGCA	ACTTTAAACT	AGGAAGCGAG	TCGCAGATTT	CTCAATGCAT	7800
AGCTTTGAGG	AATTGGGCAA	AAAGTCTTTG	ATATAGAAAA	ACGCATAGTA	TCAGGTGTTT	7860
CAACACCTGA	TACTATGCGT	TTTATGTGGG	GAAGATTTAC	TTTTTTTCTT	CTGAAATTGA	7920
GTTGTTACCC	AGGCTCTTTC	AGTTTATTAA	GGCTTGATGA	CTTTAATGTG	TTTAGATAGC	7980
TTAAAAAGGA	TTGAATCACT	TAGTTTAGAA	TCTGAAACAA	TAGTATCAAG	ATTTGATACA	8040
TTATAAAAAAG	TATAAAAAATC	AAACTTATTG	AACTTGCTAT	GATCTGCGAG	TAAATATTTT	8100
TTATTAGAAT	TATTTAAAGC	GATGCGTTGA	GCCTCTCCCT	CTTCCTCGCT	AAAAGTAGCT	8160
AGAGCTCCGT	TTTGAATACC	ATTACAGCTA	ACGAAAGCTT	TAGAAAATTG	GAGATTAGAG	8220
AGATTTTGTA	GGGTCAATGT	ACCAACAAAA	GCACCTGTAA	TATCGCGATA	ATTTCCACCT	8280
ATTAATAATCA	AATCTGTTAA	TTTTCGTTTC	CTTAAATCA	GAAAAACAGG	TAGACTGTTG	8340
GTTACGACGC	GGATATTGTC	AATAGGCAAC	TCACGCGCAA	AAAACCTCAA	TGTTGTTCCCT	8400
GGTCCAATGA	AAATAGTTTC	TCTTTCTTCT	ACTAGACTGC	CTGCAAAATG	GGCTATTTCT	8460
TGTTTTTCTG	CCGTTTGAGG	GGCTTGTTTT	TCAATATTTG	ATCGCTCATT	AGTCAAAAGG	8520
GAGTTGGTTC	GAAGTTTTTC	AGCTCCACCA	TGCACACGAA	TCAGCAAATC	TTTATCAGCT	8580

1127

AATTCCTGTA AATAGCGCCT TGCAGTCATA TCTGAAACGG CTATTTCGTC CATAATCTGT 8640
 TTAACGTGTTA T 8651

(2) INFORMATION FOR SEQ ID NO: 182:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 3786 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 182:

AATCTCCAAT CAGTGCCACT TCAGCTACAA AGAAGAGGAG GATAATAACT CCGTTCACAA 60
 GGACAGACAA GAATAATTGA TAGAAGGAGT CGGTTCCTACT TGCTTGACTT GGTCTTGTA 120
 TGATwTGGAG ACTGGCAAGC AGAATGATTC CAATGCTAAT CACACACAAG AGGGCTGTAA 180
 ATCGTAGGCT ATCAAAGAAA GCAAAGAAAC TAGCAATAGC AGTGAGGAmG ATTGGAATTG 240
 CCAAGAGTTG ACTATATTGT TGGAGAACCT TGTCTAGCGT CCAGTCCTTT TCCTGGTGGA 300
 TAAATCGTCT CACAACGAAA CTACCCAAGA GGAATGAAAA GAAGAAGAGT GTTGTGCGTA 360
 CTAGGATAGA GATGATAGAA AAAAGAGTTA AAGGAGCTAG CTGCTCAGGG AAGCGACTGT 420
 TAATGCTTGC TATATGTCCA TAGTAAGCAT GTTGTATGTG ATAGATACTA AAGAAAAAGG 480
 AAGATGCAGA AAACAGAATG AGCAAGAGAA AGGCTGTGTA ACTGTGTGTG ATACTTGTTT 540
 CCAACTTACT TGTAGGAGAT TTGATCGCTT CCACTAGCCA AGACCAAAA TCAAGCACTT 600
 GCTCTTTCCA TTTATCCCTA GATTTTGGAG CTTGGTCGGG GATATAAGGA CTTTCTAAAG 660
 ATTTACTGAT AAGAAGTGGC TCTTTCGTGG TTGCTTTTGG CTGAGGAAGA GCTTCTTGGC 720
 TCTCTTCAGC TATAGTGA CT TTTCTGTGTT CTTTAGAAAG GTCTGGCTCT TCTTCAGTAG 780
 AATTAGATGC CTTCTTTTCT TCTATTTCTG TTCTCGCTTC ACTGTCTTCA GGAGCTTCAA 840
 TTTTCTCTTC TTGCTGGCTT TCCAATTCGA CTTAGCTTG AGGGACTTCC TCCTCTAACT 900
 GAGTATTTTT TTCAATTGGT GTATCGAGAT CGGCTATCGT TTCTTCAGCC TTGTCTGCAA 960
 CCTCTTGAGC TTGCTCTTCA GGCTTGTCT TGCTTGTGT TTTTACAAAA TCATTACTTT 1020
 CAAACCATTC TTGTTTCATG GTAGAACCTC CTTTTAGTT AGATAAATAT GTTCCATAG 1080
 TAGCAAATGT AAGCGTTTTT GTCAACGTCT GCTTGGTGTG GATATTAGAT CAATATTATC 1140
 ATCAGATCTC GCAATGAGTT GATCCTGAC ATCGGTTTTT TCAGTTTTGT AAGGGTTGCT 1200
 TAATCCGTA CCTCTTGATT CAGGCTTTTC TCTTGTGAAT TGGAAGATAG AACCATAGTT 1260

1128

GCTTGAGATG TCCCAGTTAA TTCGTTGGCT TTCTTTCTGG TCTAGGATGA TTCTGAGATA	1320
ATCTTTGGCA GTCAGTTCAA CCTTGCCATG GACTTGGATA TTTTCAGCGT GGAAGTGATT	1380
CTCTGTGAC TCTAGCTGAC TATCTGTAAG AACTGTATCA AAGATATTAA CGATATTGGG	1440
CGTTGTGAGT TTAAGTGTGTT TGATACGACT TCCTTCAATT CGGAGGATAT AGCTGTTTGT	1500
ATTGAGGGTC GCATTTTCAA GGCTAGCATT TATGATGGTG GTTGTCCGC GATTGGCTGA	1560
GATGTTGATC CCTTTTAGAG TTCTCCCTTT TGGTAGTCGG AGAATAACTT CTTCAAAACG	1620
ACTAGAGTAG CTACTTGCGA TATGAAGAAT CCCACCAATT CCAGAAGAGA GAAACGGAGT	1680
TTCAGACAGT TTCTTATCAG TGAGACTCAG AGTTCTATCG TTCTGATTGG TGATAAGATC	1740
ATGGTGAGCA GAAAGAGATG GATGGTAAGA AATGTGGATT TGATCATCGA AAGAGTCTGT	1800
GATGGTGAGC GTGTGTTGGT GGAGAGTAAT TTCTAGGTTT TCGACTTCCT TGCCAAAGGT	1860
TAGCTTTTCC GTACGGCTAT CATAGACAGG TTCTTTGGAC ATGGAAAGTA GGCTCTTAAT	1920
CCCGTCAGAT TGGATACCTA CAAAAAGCAG GATAAAGCCG ATAACGGTAG TCACCACACC	1980
AAAGATGAGA AATCCTTTTG TCCATTTACG CATGCTGATT ACCTCTCTTT CCTTTTTTAA	2040
GAACAAATTG TACCAGACGA ACAATGAGTA GACCGAAGAA GCGAGTTGCA TAGGAAATGC	2100
CAAGTAAAC TAGCGAAGAA GCACCGATAG CCAGTAAACC AGAACCAGAA ATCAAGATAA	2160
AGGCTGATTT GGCTTGGGCG AGGACAGTGA AACTTTCAAC TAAAAATAGG AATCCGCCGA	2220
TGATACCCAG TATGGAAACT GCAAGAAAG CCAGAATGAC AGTCAAAGCG GCTACAAGAA	2280
TTGCGAACAG GGTACAGAGG ATGGCGATTC CCAGAGGAAT GCCGATAGGT GCTGCAAGGA	2340
GGGCTAACAA GCGATATGT AAAATTTGTC GGTATTTTTT TTGAGCGGGT GCTTCATTGA	2400
TTTTTTTATC GAGAAGATTG GATAGAACTT CGTGGGCCGC TTCTTTGGGA GTTCCCAAAC	2460
TAGCGATGAG TTCTTCTTCT CCTTCGACTC CAGCATCGTC AAAGAGCTCT CTGAAATAGT	2520
CCATGGCTTC GATACGGTCA GCTTCAGGTA GTTCTTTGAG ATAGAGTTCT AGCTGAGTCA	2580
GGTATTCAGT TCTTGTCATG GCGGATACTC CCTTCTATGA TGCCATTGAT GGTGCTCTGA	2640
TAGAGTGCCC ATTCATCTTT TAGGGTCAAG AGCTGCTCTA TACCACCGTT TGTCAAGGAG	2700
TAGTATTTGC GCATGCGACC TTGGAATCT CTAGAATAGG TTGTCAGAAA GCTATTGCCT	2760
TCCAATTTTT TGAGAATGGG ATAGAGTGTG GATTCTTTGA TATTAGCGAT CAGCTTAATG	2820
GTTTGCTTAA TCTCATAACC ATAAGAATCA CCCTGCTCCA GTACAGCCAA GATGAGAAAT	2880
TCAATCAAGG CAGAGGATGT TGGAAAGTAC ATGGGAAACC TCCTTTTCTA ATGTGTAAGA	2940
TTTTTATATA TAATTTTCT ACACATACAT TGTACATCTA AAAGAAAGCC CTGTCAAGAG	3000
AAATGTGTAA AATTTTATA TATAAAAAAC TTCTAGCTAA AACTAGAAGT TTAAAGGATC	3060

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TTATCCGCTC TGTCCACTGT AAAGAGGGCC ACAGTCATCA GGATATCGAT GAGCAAGAGG	3120
GCAGCTACAG ATGGTACCCA AGAGTGGAAC AGGTCAAAAC TGTAACCAA GAGGGTTGGC	3180
CCAAAGGCTG CTAGGATATA GCCTCCTGTT TGAGATAGGC CGGACAATTG GGCTGTCTTT	3240
TCAGGGGCGC TTGTCTTGAG TGAAAAGTTG ACCATGAGAT AAGGGAAGAG GGCACTGGTT	3300
GCGGTTCCGA TGAGGAGATG GATGGCAAGC CAGTAAATGA AATTATTGAT TGGGAAAAAG	3360
AGCATGGAAG TGCCGACCAC ACCAGCTAGT GAAACCAGAG TGAGCATGAG CTGACGGTTG	3420
CGAGTAGATA AACTGGTTGT CAGGCTTGGG ATGGTCATTG AAAAAGGAAT GCTAATCAGA	3480
GATAAGATAG AAGTCAGCAA GCCAGCTTCG TGACTGGATA GACCTGCATG GATAGACATG	3540
GTAGGTAACC AGGTCATGAC GGTGTAAAAG ATCAAGGATT GAAAACCTGA AAAGATAATA	3600
ATTGCCCAAA CCTGTTTATT ACGCATGACC TTTATTGAC TTTTGTGTTT GGTGTTGGA	3660
GCTAGTCTAT GATTATAGCG GTGATTGGG AGCCAGACCA AAAAAGTGC TAGACAGAGT	3720
AACGTGAGGA GAAGGATAAG TCCTTTCCAA GAACTGGCTT GTGTAATGGG CACAGCTAGA	3780
TAGGAA	3786

(2) INFORMATION FOR SEQ ID NO: 183:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3054 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 183:

TCAGCTAAAA AACATTGCTA AATTGATTGA AGCTGGTGCT ACACATTCCG ATTCAACTTC	60
TCACACGGCG ACCACCAAGA ACAAGGTGAG CGTATGGCAA CTGTTAACT TCGGAAAAA	120
ATTGCAGGTA AAAAAGTTGG TTTCCTCTT GATACAAAAG GACCTGAAAT CCGTACAGAA	180
TTGTTGGAAG GTGAAGCTAA AGAATATTCA TACAAAAC TGAAAAAAT TCGTGTGCA	240
ACTAAACAAG GAATCAAATC AACTCGTGAA GTGATTGCGT TGAACGTTGC TGGTGCTCTT	300
GATATCTATG ATGATGTTGA AGTTGGTCGT CAAGTTTGG TTGACGATGG TAAACTTGGT	360
CTTCGTGTGG TTGCTAAAGA TGATGCAACT CGTGAATTTG AAGTTGAAGT TGAAAACGAT	420
GGTATCATCG CTAAACAAA AGGTGTGAAC ATCCCTAACA CTAAAATTCC TTTCCAGCT	480
CTTGCTGAAC GCGATAACGA CGATATCCGT TTCGGTCTTG AACAAAGTAT CAACTTCATC	540
GCAATTTTCA TCGTACGTAC TGCAAAAGAT GTGAACGAAG TTCGTGCAAT CTGTGAAGAA	600

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ACTGGAAACG GACATGTTCA ATTGTTTCGCT AAAATCGAAA ACCAACAAGG TATCGATAAC	660
TTAGATGAAA TCATCGAAGC AGCTGATGGT ATTATGATTG CTCGTGGTGA TATGGGTATC	720
GAAGTACCGT TCGAAATGGT TCCAGTTTAT CAAAAATGA TTATCAAGAA AGTCAATGCT	780
GCAGGTAAGG TTGTTATCAC TGCAACAAAC ATGCTTGAAA CAATGACTGA AAAACACGT	840
GCAACTCGTT CAGAAGTATC AGATGTATTC AACGCTGTTA TCGACGGAAC TGACGCTACA	900
ATGTTGTCAG GCGAGTCTGC AAACGGTAAA TACCCACTCG AGTCAGTAAC TACAATGGCT	960
ACAATCGACA AGAACGCTCA AGCTCTTCTT AATGAATACG GACGTCTTGA TTCAGATTCA	1020
TTTGAGCGTA ACTCTAAGAC AGAAGTAATG GCTTCTGCTG TTAAAGATGC TACTAGCTCA	1080
ATGGATATCA AATTGGTTGT AACTCTTACT AAGACAGGTC ATACTGCACG TTTGATTTC	1140
AAATACCGTC CAAATGCTGA CATCTTAGCA TTGACATTTG ACGAATTGAC AGAACGTGGC	1200
TTGATGTTGA ACTGGGGTGT TATCCCAATG TTGACAGATG CTCCATCTTC AACTGACGAT	1260
ATGTTGAAA TCGCTGAACG TAAAGCGGTA GAAGCAGGTC TCGTTGAGTC AGGCGATGAT	1320
ATCGTTATCG TTGCTGGTGT GCCAGTAGGA GAAGCTGTTT GCACAAACAC AATGCGTATC	1380
CGCAGAGTAC GTTAAGAAAA ATATAAAAC CTATCATATC CAGCTTTAGA GCTTGTGTGA	1440
TAGGCTTTTT GTATAGAGGG TAAGAAATAG GCAAACTTT CATAATGGAT TGATACTCTT	1500
CGAAATCTC TTCAAACACG GTCAGCGTCG CCTTACCGTA TATATGTTAC TgACTTCGTC	1560
AGTTCTATCT ACAACCTCAA AGCAGTGCTT TGAGCAACtG CGGCTAGCTT CCTAGTTTGC	1620
TCTTTGATTT TCATTGAGTA TGAAATAAGA TATGCACAAA TTGATTAGAA AGTCAAATGA	1680
ATTTCTACAA ATGTTTTAGC AATCGTAATG TACTTGTCTA GATTCGATCT GATATATTTT	1740
CGATTTAATG ATATGGTATT TAAACCTCC AAAGTAGCTT ACTCCATTCT TTTACTTACG	1800
TGAGTGTA GAATTATTAC TGTTTTAGCG TTTTGTGTT CCACTCTAAC CATTATAGCA	1860
TTCTTCTCAG CTAGTGTACT AAGGAGTGTG TGCTGAAAA TATGGGAACT AAGGGGCTGG	1920
TTTATCGGTT TCTCTAGTTT AGTATTTGCC TTTTGCAAAG TGATCTTAAA TGCCTTTCTC	1980
TAAATTTACA TATCACTATT GTTTAACAAA ATCTAATCTA TTTTAGGTCA CTTATTCTTT	2040
TTTTGAAATG TAGAATGAAC TTTTCAAAG TTTTTCGAAT CTTTAAAAAT CTGTTTGCTT	2100
TATATCGCCA TTCTCCCCC TTTTTTAATT CTCCTATAT AGCCTGACAG CTTTCCCGAT	2160
GGTACGAATA TGGTTGCTTT CGTCTAGGTG GATGTCGGG TATTCGGGAT TGAGTTTTTT	2220
TGAGGCAGCC TTGGCGGAGT TTCTTGACAT AGTTAGTGCC GTCTACTTGG AAGATGCCGA	2280
TGGTATTATA GTCAATCTGT GGGGTATTCT TGATAAATAG GTAGTCGCTG TTTCTTATCT	2340
TGGCTCCAT GGAATTGCTG ACGACATAAG CGATTGGGTC GTAGTCGTCT GGGATAATGG	2400

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AAACTCCATA TCTAAATCGT TGTCTGTCAT CGAGCGGCTA CCTGCAGAGA TAAACTACCT	2460
AACACGAGAG TAAGTAGTCT GTCTGTAGTC GTCCAGTCTG ATGATTTTTA CGATACTTCG	2520
TTTTTCTGAT CATACAGTTG CCTCTCGGCA TAGGTCAGAA CTTTACCTTG TCTGGGTGGT	2580
TCCCGTTGGT CGTAGATAGA TTGGATATCG CTAGGAGAAT CCTTTTGAAC TGGAGGAAAG	2640
AGGGCATCGA TCAAGCTACT GAATACTTTA ACTAAGTCAA ATATAGTATT TTTCTTAGTA	2700
GACCTAACCC TTTTTCATA ATTTCTAATG GTGTTTTTAC TTATACCTAT CTTAGTACCC	2760
AATTCCTTATT GAGTCCAACC ATTACTAGTC TATATTGTTT TATAGTTGAT TGAGTTTGA	2820
ATAGTACGCT GTAGCTGCTA AAACATTTCT AGAAATTAAT TTGACTTTCC TAATAGAGTT	2880
GTCATATCT TATTTCAATC TATTATGTTT TTCACCTCTA ACAATCGCAA TCTCTTCTTT	2940
ATCCATGAAT GAAATCGCTT TCTATTTTGG TAAGTAAAGC ATAACACGAA ATCCACGAAA	3000
ATGAAAACCT TTGTTGTGTT TTCGTAAAAA ATTTGTTGAC AGAGCACGAA ACGC	3054

(2) INFORMATION FOR SEQ ID NO: 184:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1590 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 184:

TGTGATTTTC yGAAAATTTG GTAAATATA TCTTAATCAT TTTCAGGAGG AAAAAATTT	60
GACAAGATAT CAGAATTTAG TAAATGGAAA ATGGAAATCA TCTGAACAAG AAATTACGAT	120
TTATTCACCA ATCAATCAAG AAGAATTGGG TACAGTTCCA GCCATGACTC AGACTGAAGC	180
TGATGAGGCT ATGCAAGCTG CGCGTGCAGC CCTGCCAGCA TGGCGAGCTT TATCAGCAGT	240
TGAACGTGCG GCTTATTTGC ATAAAACAGC AGCTATTTTA GAACGCGATA AGGAAGAAAT	300
TGGTACTATC CTTGCCAAAG AAGTAGCAA AGGGATTAAA GCAGCAATTG GAGAAGTAGT	360
GCGTACAGCA GACTTGATTC GTTATGCTGC TGAGGAAGGT CTCCGTATCA CTGGACAAGC	420
AATGGAAGGT GGTGGTTTTG AGGCAACAAG TAAAAACAAA CTGGCTGTTG TCCGTCGTGA	480
ACCAGTTGGT ATCGTGCTAG CGATTGCTCC CTTTAATTAT CCAGTTAATT TATCTGCTTC	540
TAAAATTGCA CTGCCTTGA TTGCAGGGAA TGTGGTCATG TTAAAGCCAC CAACACAAGG	600
TTCCATTCTT GGACTCTTGT TGGCTAAAGC ATTTGAAGAA GCAGGGATTC CGGCAGGTGT	660
TTTCAACACC ATTACAGGTC GTGGTTGAGA AATTGGGGAT TATATCATTG AGCACAAGA	720

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AGTCAACTTC ATCAACTTTA CAGGTTCAAC TCCTATTGGA GAACGTATTG GTCGTTTAGC	780
TGGTATGCGT CCTATCATGT TGGAACCTGG TGGGAAAGAT GCAGCTCTTG TACTAGAAGA	840
TGCAGATTTG GAACATGCTG CCAAGCAAAT TGTGCGGGA GCCTTTAGCT ACTCAGGACA	900
ACGTTGCACG GCCATTAAAC GTGTCATTGT TCTCGAAAGT GTAGCAGATA AATTAGCTAC	960
TTTGCTTCAG GAAGAAGTTT CTAAATTAAC AGTTGGTGAT CCATTTGACA ATGCTGATAT	1020
TACACCTGTT ATTGACAATG CTTCAGCCGA CTTCATTTGG GGCTTGATTG AGGATGCACA	1080
AGAAAAAGAA GCTCAGGCTC TTACACCAAT CAAACGTGAG GGCAATCTTC TCTGGCCAGT	1140
GCTTTTTGAC CAAGTTACAA AAGATATGAA AGTGGCATGG GAAGAGCCAT TTGGTCCTGT	1200
TTTACCAATC ATTCGTGTGG CTAGTGTA GAAGCTATT GCCTTTGCCA ACGAATCTGA	1260
ATTCGGCCTT CAATCATCAG TCTTTACAAA TGATTTCAAA AAAGCCTTTG AAATTGCTGA	1320
AAACTTGAA GTAGGTACAG TCCACATTAA TAATAAAACC CAGCGTGGTC CAGATAATTT	1380
CCCATTCCCT GGTGTCAAAG GTTCTGGAGC TGGAGTGCAA GGAATTAAAT ATAGCATTGA	1440
AGCGATGACA AATGTCAAAT CCATTGTTTT TGATGTGAAA TAACGTGTAA AACCAGGAAA	1500
TTGTTTTCTT GGTTTTATTT TTTTGCTATA AAATAATAAT AATTATAGAA AAAATACGAA	1560
CTTTTTGGTA TTATAATAGA TTGAAACCGG	1590

(2) INFORMATION FOR SEQ ID NO: 185:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4848 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 185:

CCTGCAGTTG TCAGACCTGT AATTTTCTTT TTATCTGTAA TAAGAATCGT TCCAGCGCCT	60
AGAAAAACCA CACCTGATAT AACTTGAGCT CCTAATCGTG TAGGATCTCC TGTCCCAAAT	120
TTATAAGATA CGTATTCATT CGTCATCATA ATCAAACATG CAGCTAGACA AACAATACTA	180
TAAGTTCGGA TGCCTGCAGG CTGGGATTTG CTCCTCTCT CTAAACCAAT TATACTACCA	240
ATGACTACTG ATAAAACAAT CCTGACAACT ATTTCAATAT TTGATAACCC AAGACTAGTG	300
GCTGTCATGA TTATTTCTT ACTTTACGCC CCGGTCTTTG TGTGAAGTAT AATACCGTTC	360
CAGAAATAAT CATCAGAACA ATTGTATAAA CAAATACCAG AGCTTGTCGA TTAGATGTTG	420
CTGTTTCATC ACCTGCAGAT CGAATCGTAA TACCTAATGG TTGAGCTAGG GGATGGTAA	480
GGAATACAGA TAAGTCGAAG TCAGTTAATA AAGAGTTAAA GTTTAAAGCA ATAACAGAGA	540

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GAACAACCGG	TAAAATAAAT	GGAATGATAA	CCTTCATCAT	AGTATAAAAA	GGTGAAGCAC	600
CCATACTTCT	TGCTGCATCT	TCCATCTCAT	CATCAACACT	AAATAAAATA	GCACGTACCA	660
TTCTATAAGA	AAATGGGATT	TTTACAACCTA	TATATGCAAT	AAGTAGAATT	ACCAAACCTAC	720
CTACCAAAT	CTGATTCAAG	ACAAGAAATT	GTGGCTGATT	AAAAGTAAAT	AATAAACTTA	780
CTGCTAAAAG	TGTACTTGGT	AGTAACCAAG	GAAGTAGAGC	ACCATATTCA	AATAAGAAAT	840
CAAAACGAGA	TTTATGTTTT	CTGACAACAC	GAGCAAATAC	AACTGCGAGA	ATTGTTGCTG	900
TTGTGCGAGC	AATAATAGAA	TAAATAAAGC	TGACCAAGAA	TGGAGAGAAT	GCCGCACTAT	960
TACTAAAGAA	TAAGCGATAA	TTTTCTAAAG	TAAAGTTTGA	TAATGTTAAG	TTACCTGTTT	1020
GAATTGCAAC	TGGATCTGTA	AATGAGTATA	ATACTATAAA	AATTAGTGGA	AGCATGAAAA	1080
CTGTGAACAA	TCCATATGCT	ACAATGTGAG	CAATGATATT	CCAAGGCTTA	GACGCAATTT	1140
TTTGTTTTTT	AAGAGGCGCT	TTAGTCTTAG	AGATAGAAAT	ATAATTTCCA	CCTTTTTCTA	1200
TCTTATTCAT	GATAGTAAGC	AAAATTGTAG	TTGCAATACC	TAAAATAATT	GCAAGTAGGG	1260
CAGCTAAATC	ACGAGAATTC	CCCATCCCTG	CAAATGTAAT	AATCATTGGA	TTTATAGTTT	1320
GAAATTCFTT	ACCACCAACA	ATCATGGGTG	CTGCTACTGC	AGATAAACCA	CTAAGAAAAA	1380
CCATAATAGT	AAGTGCAAAT	AGAGTTGGAA	TTAAGTTGG	TAACACTACT	TTTCGGAAAA	1440
CAGTAAATGG	TTTTGCTCCC	ATATTTGAG	CAGCCTCAAT	AGTGTGATAG	TCAACGCTTC	1500
GAATTGTATT	TGTTAAAAAC	AATGTATGAT	TAGCAGTTCC	TGAAAATGTC	ATAATGAATA	1560
AGACTGCACC	ATACCCAATA	AACCAGTTAG	GGTCTAAAGA	AGGGATAACA	TTTTGTAAAA	1620
ATTTTGTAAT	CAATCCATAA	GGACCATAGA	CAAATTTATA	TCCAGTCGCT	AAAACCACTC	1680
CTCCATAAAT	TAAAGAGGTC	ATATAACCTA	ATTTTAAAAAT	TTTAGCACCT	TTAATATCAA	1740
AGTACTCTGT	AAATAGAACA	CAAAGAATAC	CTACGACATT	AACTGTAATA	ATGAGTGAAA	1800
ATGCTAACTT	AAAACGTTC	ATAATACTCT	GAAGTGCCCT	CTGAGATTTT	AGAACACGAT	1860
GTACAGCATC	AAGGGAAAAT	TCTCCTCCTT	TTACAAATAC	ATTCACACT	AGATCAAAGT	1920
TTGGATAAAT	AATAATGTT	ACTAAGAACC	AGATTAACCC	TAAACGAATA	AGCCAATCTT	1980
TTAAATTTAA	TTTATGACGC	ATACTGCACC	TCCTTAAAAAT	TGCAGAACGT	CTGATGGTGT	2040
GATAAATAAT	TCCACACTTT	CTCCGACAGA	TCTAATAGCA	GCCTGACTAT	CAATACTTGT	2100
TACATTAAGA	ATCTGACTTT	CAGAAACTTT	TATTGTATAG	TGAATTGTAA	CTCCAGAAAA	2160
CTCAACATCA	ATAATTGTCC	CTTTTAGAAT	AAAATCTTGT	TCAGTTTCAC	GATTGAATCG	2220
AACTTTCTCT	AATCGAATGT	ATCCTTTTTT	ATCCTCTAAG	AAAACGCTTG	TATTTTTCAA	2280

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TAATACTTCG TGGACTGTTT CATCGGTCAA AACATTAATA TCTCCAATAA AATCACATAC	2340
AAATTCAGTT TGAGAATTAT GATAAATCTC TACTGGTGTA CCGACCTGTT CGATGTATCC	2400
ATTGTTAAAG ACTGCAATTC TATCAGATAA AGTCAAGGCT TCCTCTTGAT CATGAGTAAC	2460
ATATAAAGTA GTAATACCTA ACTCTTTTGT AAGTCTTTTC AACTCTTTTC TCAAATCTAC	2520
ACGTAATTTT GCGTCAAGGT TTGACAATGG TTCATCTAGA CAAAGAATTT TAGGTTCAAG	2580
AACCAGAGCA CGAGCCAATG CTACCCTTTG TTGTTGACCC CCAGATAATT CTGATACATT	2640
ACGCTGTAAC TGTGTATCAG AGATCTTAAT TTTTGCTGCC ACTGCTGATA CTTTAGCTTT	2700
AATAACATCT GGAGCTACCT TCTTAACTTT TAAACCAAAT GCAATATTAT CAAAAACAGT	2760
CATAGTTGGA AATAGCGCAT AAGATTGAAA TACAATACCA ATTCCACGCT TTTCAGGTTC	2820
CAAATGAGTG ACATCTGTTC CATTAACCTC AATACTTCTT GATGATGGAT CTAGAAAACC	2880
TACCAATGCT CTCAAAGTAG TTGATTTACC ACATCCTGAA GGCCCAAGAA ATGTAAAAAA	2940
TTCCCTTCA TGTATATCTA AATTCAGATT ATCAATTGCA ACAAATCAC CATATTTAAT	3000
TTGAATATTA TCAAATTTAA TCATCTCACT AACTCCCTCT ATTACTAAAC CAAAAGCCTC	3060
TCTTTATTTT TTCCATAAAT TTAGAAATAA TAGAGAGACT TGGACATAAA AATTAACCTT	3120
TATTTCTTAT TGTACGTATT CTAATTCAGC TTTTCTACC CATTCTATCA AATGCTTTCC	3180
AACAGCTTCC CAGTCAATAT TTTGTGGTTT CACTTGATCA ACAAATTTCT TCGTATCTTC	3240
ACGTAGATCT TTGAGGGCAT CTTTATTTTC AGGAATAGAT CCAAAGTTCT TACTATATTC	3300
TACTTGAATT TCTGATTGAC CAAACCAATC AATAAATCTT TTAGCTAACG CTTGTTTTTT	3360
ACTAGTGCTT AAAACCATAG TTTGTTCAAT TACAAATGGT ACACCAATCT CAGGAGTCAT	3420
AACTTTGAAA ACAACATTTT GTTCTTTTGT TCCAACATAT GCACCAGAAC CCCACATCAT	3480
TCCATATTGT ATTGGATCTT CTTTGTCTAA CATCTTAACA ATTGAACTTT CTCCTTTTGT	3540
AAGAGTGTAT GCATTTTCA AATATTCTTT TGCTACTTCC CAACCTTTTT CGGAAACACC	3600
TAATTCACCT TTATCATCAA GGTATCGAAC TAAGATACTT GCTAGAATTG CCCGTCCTGT	3660
ACCTCCTTGA AGACCAGAAA TTGAATATTT ACCTTTATAC TTACTACCTA ATTCAGTCCA	3720
ATCTTTAGGC ATTTCTTTTA CATCAGGCGC CCCAATTAAA ACTAATGGTT GAACAATCAC	3780
AGGATTATAA TAATTATCTT TATCTGATAA AGATTGATCA ATTTTATCTA ACCATTTAGG	3840
CTGTACTGT ACTAGTAATT TTTGATCTCT AATTTTATTT GAATCAACAG CACCAATTCC	3900
AAATACCATA TCTGCAACTG CATTATTCCT CTCAGCAATA ACACGGTCTG CTAATTGAGC	3960
GCCACGGATA TCAACCATTT TTATATTAAA ACCAGCTTCT TTTGCTTTAG CAGTTAACCA	4020
ATCACCACGA CCATTTGAGA CTGAGTTCGA ATAGATAACT AATTCTTGAC TTTTATCAGC	4080

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TTTTTCTTCA GATGAAGAAG CAGTCGTAGA ATTTGAACCT CCAGAGCAAG CAGCAAGTGT	4140
AGTAAGAGCA ACTCCCGTTG CAAGTACAGT AGACCAAACCT TTCATTTTTT TCATGATAAG	4200
TTCTCCTTTT TTATTATTTT ATTTAAATTT TTCGTGATAT GGAACAAATT GTCTCATATC	4260
TTCAAATACA GTATAGTCAA TACGGTTTAC AGTAATAGTT GGAATCTTCT CTAATAAAAT	4320
TTCAGTTAAT TCTGCTCTGA CTTTAGTAAA CTCTTCTTCC TCCTCTTCGG TTAGAGGAAT	4380
CCGAAGATAC CCAATTGAAA TATGGAATTG ATATCTATCA TGATTAGGGA AACAAACACC	4440
TGCTTTTCTT GAGACATAAG TACGAATTTC TTCTAATCTC TTTGCAGAAG CTTTCATCTGC	4500
AGGTTCAACT AGTATGTTTT GTTTTCCCAT TTCAGTTATA CGCATATGAA TTTCTTCATC	4560
CAACAATGGA AAAATTTCAA GTTGTTTAGC AAAGTAATCA TGTATTTTCT GTAAAGGTGT	4620
ATCTAGAGGA AGATTACTGC TCCAAACTC gtTCACGATT TTCATGGCAC ACAAATTCAA	4680
TTACAGTCAT GTGAATAGAA TTCCTTGAG TTAAGTAAA CTTATCGATA AATGGTAATT	4740
CTCTATAACG TGATTGAATA ATATCAACAA CTTCATCAA ATCTTGTTTA GTATAAAGAT	4800
TTGCTACAAC TGTATTCCCA GGGAAATGAT TAAATCCCC ATTCTCGG	4848

(2) INFORMATION FOR SEQ ID NO: 186:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3763 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 186:

GTTATAAGCA ACACCTTCTT GCTTGCCATA AGTTGTGAAA TGGGTAGAAT CGATATCTAC	60
AATGAGTTGG TTTAGCTGGT GAAACTGTAA AAAGAATTCG ACCAATTCAA GGTGAGGCA	120
TCGCAACTA TGGACTGTTT CCTCGTCAGT TCTGGAAAGA AAACGGGATA AGGTTGGCTG	180
TGAAGCAAGC TGCCCTCCTT CCAATAATTT TGGAAAGTAG GCATCAGCTG ACAATTCCTT	240
ACAAGCATAG TCCGTTCCAT AACCTGTTAA CAGTTGAAAG AGGAACTGGA CAAGGATATC	300
TGAATCCGAA TAACGACAGT AGCGGCGTTG GTCATTTCGTT ACTAAATACT TAGAAATCCG	360
CTCTTTTAGT TTCAACTGGG AAAAAAGTTC CTGAAAAAG ATAAGACCAC CATACTGGGT	420
TAAATGACCT CCATCGAAAG ATAGTTGGTA AAAAGACTTG TTTTGGAGT GATGATTGG	480
TAAACTGTTT ATGTGAGTTT CCTTCTTTT TGTGTTTTT TCTACACTTA TACCATAAAG	540
GGGAACTCT TTTTGTCTA GTAAAAACA CCCATTGGGT GAAAAAGAA ACCATCCAGG	600

1136

ATCTAAGCTA AGGCAAGGAT TCTGGATGGT TTTTAGATTT GGGGTGAATA ATTGGGGATT	660
TAGGAGAAAT GATGGTATCT TCCAAATCAA AATCAACTTC ACTCCATAGT CTCAACTGAT	720
TGATTTTCCC ATCTTGATAG GTCACATCCT TGTCAAGGAT AACTGAGTC AACACCTCAT	780
GTTGACCTTG ACACCTGATG TCATCTACCA AGAGCCAGAC ATCCTCTACC AACATGAGGA	840
TTTTTCTCCT GTGAAGATAA GGCAAATCAG GTTCTGCTGA CCAATAAGCC CCCTCAATAT	900
AATGCACTCC CTCCCTTTCT TTATGGTGAC AAAACAGGGA GTGAGGATAG TATTCATATT	960
CCCAGGATCC CGTGATTCTT TCCGGAGCTT TCCCATCTAC AATGCAGGTC GAATGACTCC	1020
AAGCACTCTT TAAGAGATAA CGTTCATATA TCTCCCGATA AGAATAACGC CCAGCATCTA	1080
TGAAAATAGG TTGGCCTTGA TACTGTAAGC AAAAATATT CTCGTCACCTA TGACTATGGG	1140
CACCTCCTAG CGGACCATTT TTGAAAAATA GATAACGATG TTCATCCTTA ATGCAGACAT	1200
GTCCAGAGTC TTCAAAGATC ATGGACTTAG GCTGCCAAGC TCTCTTTTCA AATTCCTGCA	1260
GTGCTTGAC CTTTCTCGC CCCAGGAACA AGAGGCTAAG CAAATCAACT TTAACATCCA	1320
GACCGTTAAG AAGGTCTTCC TGGTTCAAAA CCACAGCAGA CAGGCTCAAA ATTTCTGTCTG	1380
TTTCTGTAGA ATCGCTATCA CCAAAAGCCA AAGTCCGTCC ATCTAAGCCT GTCATCATTT	1440
GAATATAGGT CGCCATCTTT TCCAGCAACT CTTGGTAACT ATCTTGCAAG TCTGGAAGCA	1500
AGAGACACAA ATCCAGCAAG GCTTTATAAA CCTCTACATG ATAGAGAATC GACTGTTCAA	1560
ACTGCGTTCC ATCTCTAAA ATCTGTGTCT CAATTTGCTG TTTCAACTCC TCTGAAGCAA	1620
AATGTAAGC TTCTCTAGA TCCATCTTAT CTGAAAAGAA ATGATAGATA GCAAGCATCG	1680
GAATTGTTTG TAAATCCCC CAGTTACTAA GGGTGTACTT GGCGCGATAG TAGCTTTTCA	1740
TAAAGTCAAT CTGCTTTTCT AGACTGACCA AAATTTTCTC TAGTTCTTTC TCCTCTAGCA	1800
AGTCAAATTT CAAGAGGAGC AAGAGTAGTT TCAACCAAGT AAAGGAACGA ATACCCGTAT	1860
CCAAGGTTCT AGTCATCAAG GATTGAGGAG AAAATTCTCT CACCTGCTCA ATCCAATCAA	1920
ATAGAAAGAA CTTGCACTTT TGAATATAGT CCTTATCTCC TTCTACCAGA TACCCTATCA	1980
TAAACTGCAA GAGATATTCT TGTCGATTGA GCATATAAGA CCATTCTGGA TCATCTTCAA	2040
ATACTTGATC CCATACCATC GGCTGGATTT GATGGATTTT TGAACAAGGC TCCATATCCC	2100
AAGGACTATC AAACATAAAA CGATTGTCCA TCAAGCGTTC AAGGGAAGTC TTGACTTTCT	2160
CATAGTCTTT TGAACAGTGC GACAAGATAT AATCAGGACA TTGATTTCCA TCGACTCTTT	2220
CAAAAAATG TCTTCTTCT TCTTTCATTA TCTATTACCA GAAAAAGAAC TACTTAAAAA	2280
GCAGTCTTT TGTCTTTCCC ATTACACTTT CCTTTTCTAC ATGGATGACC ACACCTTTTG	2340
CAATCTGCAA GGAGACCAAG TCATCTTGGA TAGAAATGAT TTTTCCATGA ATTCAGACA	2400

1137

ATAACAACAC TTCATCACCA AATGTTAAAG AAGCTAAATA CTCTTGTCGT TGCTCCATCT	2460
GTTTGCGAAG CAACTTTTGC TGACGAATAG AATGAAAGCT TGACAGTAAA AGGGGACTCA	2520
CTGCCAAGAC AATCACTATT CCATAAAACA ATGTTGTATC CATTAAAGCTA TAATCTTAAG	2580
CCAGCTTCCG ATAATTCCGA TGATAACTGT TAAATAACG AGTTTATATG TTGTCCATTT	2640
CTTTTCTTTG ATCAAGTAGT AAATAAAAG TGTAATAGG GCTGGTAGAA GAGCTGGAGC	2700
AACCTTATCA AGCATTCCCT GAATACTTAC GATACTTTGT TTAGCGTCTG CTTTAACTTC	2760
CCCTGCAGCA AAGGTAATCG GCACCATAAT CTTAACAGAT GTCGCTGCCA AACCAGCAAT	2820
TACGtTACAC CGATAATATT GGCAATACGA GAAATCGTTG CCATCTGTTC GCTTAGTTTA	2880
TCAATCACAG TTGTTCTTAG TTTGTATCCA TACAGACCAG TTGACAATTT AATCGCTGTT	2940
AAAATCGTAT TCATCGCAAG GAAGAACAAG ATTGGACCGA CAACCAAGCC TTCTTGAGCA	3000
AACGAAGCTG CGATGGTTGA GAACAATGGA GCTAAACAGA ATTGAGAAAG AGAATCCCCA	3060
ATACCTGCCA ATGGTCCCAT CAAGGCCATC TTGATGCTAC GTGTTTCTTT TGCCGGACGG	3120
CCATTTTCCA ACATTACAAG ATGCAAGCTG GTAATAAAG GCAGGAAGTG TGGGTTGGTA	3180
TTATAGAATT CACAGTTTC TTCCAAGGCT TGGTAGAAAC CTCCTGATC CTCTCCATAG	3240
TGTTTTTTCA AAGCAGGATA CATCACATTG GCATATCCA ACCCTTGATA GTTACTATAG	3300
TTAAATCCAT TTTGACAAAA GAATGCCCGC AAAGACGTTT TAAGATAATC ACGTTTGT	3360
AATTTGTTAG ATCCAGTCAT CGTGTGCTTC CTCCTTACC ACATGATCCG CTGTTTTTGG	3420
CTTGTTATAA AATTCAATCA AAGCAAAGAT AGTACCTACA ATTGCAATAC CAATTGTTGG	3480
GATGTTTAGA TAAGCTGCAC AAACATATCC CAACAAGACA AAGGGAATCA ACTCTTCTT	3540
AGCCATCACT GACAAGATCA TCGCAAAACC GATAGCTGGG AGCATTTTAC CAGCAACTGT	3600
CAAACCTGTA AGTAATACCG GTGGAATGTA GTCTACGAGT TTCAACAAGG TATCCATTGA	3660
AAGGGCACCA AGCAACCCAA GGTAAATCCA ATAAAGGCAA ACAACCAAAT TGTGCAATT	3720
AGAGTGAAC TAAATTCTT CAAATTATGG TTTTCAAGT GCT	3763

(2) INFORMATION FOR SEQ ID NO: 187:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5053 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 187:

1138

CAATCTCTGA GTATGTGCGG TCAATACTAW CAAAGGGAAT yCCTGACGTC AAGTAATGTT	60
CAATTGGmCT ATAGGTAATG GCAACCACTC CATCAACTTT ATTATGACGC AACATCTCCA	120
GATAGTCTTG CTCTCTATTT GTACCATTGA TAGAACATAA GAGTAATTG TTATTTCTCT	180
TATAGACTTC ATTTTCCACA TGCATAGCAA ATTCTGAAAA GAAGGGATGC CAGATACTTG	240
GTACAATGAT TGCAATCGTT TCTGTTGAT TTTTTTTCAT TCCTCTAGCG TAGTAATCTG	300
GAATGTAATT CAAAGTTTAA ATCGCTTGT CCACTTTTTC CAAAGTTACT TCTTTAATGC	360
CTTTTCTTTT ATTAATTACA CGTGAAACAG TTCCAACACT AACTCCTGCT TCTAAAGCAA	420
CATCTTTCAT GGTAATTGAT TTTCTTTGTT CTACCATATT ATCACCTCCT TTCAATATAT	480
AGTATCATGC AAATGCTTTT TAAGCAACTA TTTCTCAATC ATTTTGGCC AGATCATTTA	540
TCCCATCATG AATAAAATCA CTCCAATTAG CTTTGTAAAA TACTTCAATT TTCATGTGA	600
AACATCTACA TAAACAGGA AAAGCCTGG TTTTCATGGCT TTTTTCGTAT CTCTATAAA	660
AAAAGCAAGA GTTTTAGATG GCTATAATC TAGATGTACA TTTTGCTTAA ATGATTGAAG	720
GTCTTTTCTT AACAAAAACA CCCCCAAAT TAGACTTTTT CTGTCTAACT TTTGAGGTAC	780
AGTTCAAACG CGAAATAGCG TTTTTTGTGTT ATTTTGTGTT ACTCATCTAA TCGAATAAAC	840
ATCATGGCAT TTAACAAGTA TATGAGTGAG ACCGTGTTTA TATTATTGA ATAGATGAGT	900
CTCTTATTTT CAATAGGAGG AATAATAAAA TTAGAAATAA TGATATCATA AGGTGAATCT	960
TCTAAAGATT CCTTGTATAA TTCTAATCA GTCCAAACTT CCAGTTCAA ATTTATGCTA	1020
CAATAATAAG AAAGTGCTC TGCAACGAAT TTTGCATGAT ACTGATCAA ATTACTCATA	1080
ACTAAAACCT TTAGTTTAGG CTGATTTTGT AGCAAATTAA TCACCAAATG TTTGGTATGA	1140
GTGATGAAGG TATAAGATAG ATGATTTACC ATCATTGAAC TAGAACAAAC CTCAAGAGTC	1200
TCTAAATAGT GAGAAAGCTC TTTTTTATA TCTGAAACAA ATTTTGGAAA AATATTTTGA	1260
AAGTTCCTGA TTGTATTCCC TTTTGTATCA AATAAAATAA ACTCAGTAAA CAACTCTTGA	1320
CGATACAGAT GTGCGGTATT ATGCAGATGC CAAATCAGAT TATCCTTATT CTCCATTCA	1380
ATCTGATACT TGACTGAAAT CTGATCAATA AAATCACTCA ATAGATGGTA AGATTTTCA	1440
ACATAACTAT CCTTTTAC GCATTTTATA AAGAGACTTT CATCTATGAA AAACATTTT	1500
TGAAAGTAAG ACACAAATAA TTGGCAAACA ACTTCTTCAT CTAAAGAGAT ATTGTATTCT	1560
GATTCAAAA TCTGAGCAAC ACCTTCTATT CCTTCTGCCT GCATTAAAA ATCCAAACTT	1620
TGGTCGTTAA AAGAATCTTT ATCTACTTCC ATAAATGAC CAACTTTAT TCTATATAGG	1680
TTCGTAACTA GGAGCAACTT TAGCATTCTA TCGGTTGACA AATTCATTGG AAAGCTTGT	1740
TCCTTATAAA CCAATTCTAA CAATTGAGAT AGTGGCTCTG ATGAAAAATT TTCAAATGGC	1800

1139

CATTCTAGGA AATAATATTT TTCTGAAAA TATTGTGCAA AAAAGTAACG AATGTCTCTC	1860
TCATTTCCAA TGATTGGAAC AGGGGTCAGA CTAACCTCAA ATTGAAATG CCTTTTAATC	1920
ACTTTATTGA TTTGGCTAAT AATACGATAG AGCGAAGATG AACTGATATA AAATTCCTTA	1980
CAAATACTCT CAGCTTGACA ACCTTCATTA AAGAAGATGA ATTCATAAAT CGAAAAATGA	2040
GTGGAATGTT TAAAGAAATG ATGGTAAACC ATTTCAATAT CACTATCATC GGTATTAAATA	2100
ATGCGTATAC CATTAGTAGA AGAATGAAAA ATCAAGTCAG GAAAAGCAGA TTTAACATGG	2160
GATAGATCAT CTTTGACTGC ACGTTCTGTA CAATTTAATA ACTCTGCTAG TTCAGAACGA	2220
TGAAACCAAC GTTTATGTTT AAATAATAAT TCTAATAATT CTAATTGCCT ATGACTTTTT	2280
TTAGATAATA AATCTCTCAT GAATATCTTT CTCTCTTTAT AAATTATCGG ATTAAACCTC	2340
TTGCAATTAT ACCACAAAGA ATAGGTATAG CATGATATAA CGACTTTTCC TAAAATCTTT	2400
TATTTTCGTAT AATAACACTA CGGAGACAAAT ATATAACAA TTTTCTTATT TTACCGTCTA	2460
TTGAGGGCGT GAATACAGAA TCAAAATCAA GTCTAAAGAT TATATTTTTA ATTTTAAAAA	2520
TTATATAATA GCAACAATTA AAGAATTTGA TTTTTTAAAA TTATATAATA ATAACAATCG	2580
AAATAATTGA CTTTTCTATA TTAAAGTTAT ATAATAGTAA TAATCAAAGA AATTGATTTT	2640
TTGATATTAA AATAAAAAAG GAGGGTAGGC AGTGTGTGTA TCAATTATTG CTGGAGGTCT	2700
TATTTGGTCTC TTGGCAGGTA AAATCACTAA AAAAGTAGTT CTATGGGAAT CATCGCAAAT	2760
GTATTCGCTG GTTTAGTCGG GGCATATGCA GGACAATCTC TTTTAGGTAG TTGGGGTCCA	2820
GCAATCGCTG GAATGGCTTT GCTCCCATCT ATTGTAGGTG CAGCGATTGT GATTACTGTA	2880
GTGTCAATCT TTACAGGTAG AAAGTAAACT TTTCGCCAGT AAAGTTAGCA AACTATTTTT	2940
AAATCAATGA CGGGAAAAAT AGTTTAAATG TTAAATCGAA AGGATTGTAT ATGTCAAAAG	3000
CAAAGAAAAT ATGTTTCATT ATTTTCTGTA TTTTAATCTT GACAATTTTC CTTCTGTTTT	3060
TGATAGATTA TCATCAAGTT AGTGATCTAG GTATTCACTT ACTTAGCTGG AGACAGAACT	3120
CCGTAGTTGA ATTCTATCTT GCTAGATATG TCTTTTGGGG GACAGTGGTT CTATCAACTT	3180
TAGTTTATT ATCCATTTTA GTTGTGATGT TTTATCCTAA ACGTTACTTG GAAATCCAAC	3240
TTGAAACTAA AAACGATACA TTAAATTTAA AGAATTCGGC AATCGAAGGT TTTGTTAGAA	3300
GTTTGGTGAG TGATCATAGA TTGATCAAGA ACCCAACTGT TCATGTAAAT TTACGAAAAA	3360
ATAAATGTTT CGTTCATGTA GAAGGTAAAA TTCTTCCTTC AGACAACATC GCTGACAGAT	3420
GCCAAATAAT TCAAAATGAA ATAACATAAT GATTGAAGCA GTTTTTTGGT ATTGAGCGTC	3480
AAGTAAACT TGAAGTTGCA GTAAAAAATT ACCAACCAAA ACCTCAAAC AAAAAGACTG	3540

1140

TTAGTCGTGT GAAGTAAGGA AGTAAAAAAT GGAATGGCTT AAACAATATC GATATCCAAT	3600
TATCGCTGGT CTCATAGGCG TATTTCTGGC TTGTTTGATT GTCTCCTTTG GCTTCTTCAA	3660
AACAATATTT GTATTGATTT TAGGAGCACT GGGAGTTGCA GCTGGATTAT ATATCGAAAA	3720
AAACTATATA GATAAATAAA AAAATAAAAA TTAATAATTT AATTAAAGGA GTTTCATATG	3780
TCAAACGAAA AAAACACAAA CACTAACGTA GAAAAGAAAG ATGCTACTGT TGTAGCTCAC	3840
GAAATCAAAG GGGAACTTAC TTACGAAGAT AAAGTTATCC AAAAAATCAT TGGTCTTTCA	3900
CTAGAAAAAG TTTTCAGGTCT TTTGGGAATC GATGGTGGTT TCTTCTCAA TCTTAAAGAA	3960
AAAATCGTTA ACAGCGATGA CGTAACAAGT GGTGTTAACG TAGAAGTTGG TAAACACAA	4020
GTTGCAGTTG ACTTAAACGT TATGTTGAG TACCAAAAAA ATGTTCCAGC TTTATATTCA	4080
GAAATCAGAG AAATCGTATC TTCAGAAGTT GCTAAAATGA CTGACTTGGG AATTGTTGAA	4140
ATCAACGTAA ACGTTGTCGA CATCAAACT AAAGAACAGC ATGAAGCAGA CTCAGTAAGC	4200
CTTCAAGATC GCGTATCTGA CGTTGCTGAA TCAACAGGAG AATTCACTTC AGAACATTC	4260
GAAAAAGCTA AATCTGGTCT TGGATCTGGT TTCTCAACTG TTCAAGAAAA AGTTAGCGAA	4320
GGTGTAGAAG CTGTTAAAGG TGCAGCAAAT GGTGTAGTAT CTCACGAAAA CACTCGTGTA	4380
AACATAAGATA AAATAAATAT AACAGGAGAA ATTATCATGT CAGTAGAAGA AAAATTAAAT	4440
CAAGCTAAAG GTTCTATTAA AGAAGGTGTT GGGAAAGCCA TCGGTGATGA AAAAATGGAA	4500
AAAGCAAGTC CAGCTGAAAA AGTTGTTTCT AAAGTAAAAG AAGTTGCCGA AGACGCTAAA	4560
GACGCTGTAG AAGGTGCTGT AGAAGGTGTT AAAACATGT TGAGTGCCGA CGATAAATAA	4620
GGTTAAAAGT TACTTTATCT TTTTAGTAAT ATTAGTCAA AGAGTCTGAG TCAAGATGAT	4680
TCTCAGAAAA CAAAAAGCTA GAGATTCCCA ATTGCGGAAC TCTAGCTTTT TAATTTTGCC	4740
TCTTCTCTTT ATTATATTTC AGCAGGTTGT TGGCCATGAG TACGAATCCC ATGTCAATTC	4800
TCACTTGACG CTTACCTCTC AGATGACATC TCTTATAACC CAAACAAACC TTTATCTGCC	4860
CAAAGACAGA TTTTCATATCA ATCTTACGTT TAGCGAAAAT TTGTCTACCC TTGGAAGATA	4920
AAAGTGCCTG ATATTCCTTA GTTTTAAAC ACTGGTAACG TTCATTGATA TACAGTCTCT	4980
TTTGAGGGGC TGATTCAGGT TCATAATCGC AGTCAACATT GATTTCAGG CTGTTTGCTT	5040
TCTATCTCCC CGG	5053

(2) INFORMATION FOR SEQ ID NO: 188:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6492 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1141

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 188:

AATTCTCTTT TTTCCAACAA AATGTATGAC CTGCACTTGA ATACTTCTCA TTGTTTGTAC	60
ATTCATCTAC TTTTATATAA TCTTTTACAA AATCATAATA TGACATAACA CACTATCCCT	120
TTTAGACAAT ATTCCAATTA GCCTTATTAA TTCAAAATA TTGTATTAGT AATTATAACA	180
GATGTATAAT AGAAAAGCAA TGATAGATAT TATCAATTAA GCGAATTTAT ATCTAAAAGG	240
GATATTAAAG AAAGGAGATA TGCTTATGAA GATTTACAAA AAACATTTTG CTTATGTCCA	300
AGATAAGAAA TATCTTGGGG TTTTGCCAT AATTTTTTCT GCTATATCTG CTGCACTTAC	360
AGTATATGGA TATTATTTAA TCTACAAAT TCTAGATAAG TTAATAATTA ATTCAACTT	420
ATCCGGTGCA GAGAGTATAG CATTAAAATC TGTTATTACA CTAACAAGTG GAGCGATATT	480
TTATTTTGTC TCAGGAATGT TTTCACATAT CTTGGGATTC AGGCTTGAAA CAAATTTAAG	540
AAAAAGGGAA TCGATGGTCT GGAAAAAGCA AGTTTTAGGT TCTTTGACTT AAATCCATCT	600
GGTCAAATAA GAAAGATTAT AGATGCAAT GCTGCACAAA CTCATCAGGT GGTAGCACAC	660
ATGATTCCTG ATAGTTCTCA GGCAATAATC ACACCCGTAC TTGTACTTGC ACTTGGCTTT	720
ATAGTAAGTA TAAGAGTTGG CATAATTTTG CTGCTCTTA CTATAATTGG TGGCTTAATT	780
TTAGGGGCAA TGATGGGCGA GCAAGAATTT ATGAAGATAT ACCAAGAATC CCTATCTAAA	840
CTAAGTGCTG AAACGTGTTA GTACGTGAGA GGAATGCAAG TTGTAAAAAT ATTTAAAGCA	900
AATGTAGAGT CTTTAAAG CTTTATAAG GCGATAAAG ATTACTCAA GTATGCTTAT	960
GATTATTCCC TATCTGTAA AAGGCCTTAT GTTTGTATC AATGGTTATT TTTTGGACTG	1020
ATTGCAATTT TAATTATTC TATAGTTTAT TTTATGACTA GCTTAGCTAG CGCAAAGGTG	1080
ATTTTACTTG AGCTTATCAT GATTTTATTT TTATCAGGAG TTCTCTTGT TTCATTCATG	1140
AGAATGATGT GACTCCATG TATATTTCTC AAGGAAATTA TGCAGTAGAT ACTTTAGAGG	1200
CGCTTTACGA AGATATGCAA AAAGACAAAT TAGTGCATGG TAATGTCAAT AATTTTAAAA	1260
ACTATAATAT AGAATTTGAG AATGTTAGCT TTGCTTATAA TGATAAAGCT GTCATTGAAA	1320
ATTTATCCTT TAATTTAGAA GAAGGAAAGT CCTACGCACT TGTCGGTTCA TCTGGATCAG	1380
GCAATCAAC AGTAGCAAAA CTTATATCAG GTTTTACAA TGTTAATAAA GGAAGCATAA	1440
AGATAGGCGG GATAGCAATA AGTGAATATT CTGACGAAGC CTTAATTTAA GCCATTTCCCT	1500
TTGTTTTTCA AGATTCAAAA TTATTCAAGA AGAGCATTTA TGATAATGTA GCGTTAGCTA	1560
ATAAAGATGC GACGAAAGAT GACGTTATGA GAGCCTTAAA ATTAGCAGGA TGCGATTAA	1620

1142

TATTAGACAA ATTCCCAGAA AGAGAAAATA CAATCATAGG CTCAAAAGGT GTTTATTTAT	1680
CCGGTGGAGA AAAACAAAGA ATTGCAATTG CTAGAGCAAT TTAAAGGAT TCCAAAATTA	1740
TTATTATGGA TGAAGCATCA GCATCTATTG ACCCAGATAA CGAGTTTGAA TTGCAAAAAG	1800
CTTTTAAAA TCTTATGAAG GATAAAACAG TTATCATGAT TGCACACAGG CTATCTACAA	1860
TTAAAGACCT TGATGAAAT ATTGTCATGG ATAGTGGAAA AATTATAGAA AGAGGGTCTG	1920
ACAAAGAATT AATGTCAAAA GATACAAGGT ATAAGAGCCT GCAAGAGATG TTTAACAGTG	1980
CGAATGAATG GAGGGTTTCA AATGAAAGAG TTTTATAAAA AAAGATTTGC TCTTACAGAT	2040
GGAGGAGCAA GAAATTTAAG TAAAGCAACA CTGGCTTCAT TTTTCGTTTA TTGTATAAAC	2100
ATGCTTCCTG CCATATTACT TATGATTTTT GCTCAGGAAG TTTTGGAAAA TATGGGCAAA	2160
AGCAATGGCT TTTATATAGT ATTCTCAGTT TTGATTTTGA TAGCAATGTA TATTTTGCTT	2220
TCTATCGAAT ACGATAAAT ATATAACACA ACCTATCAAG AAAGTGCAGA TTTAAGAATA	2280
AGGACAGCGG AGAATTTATC AAAATTACCT CTATCTTACT TTTCTAAACA TGACATTTCC	2340
GACATTTTAC AAACAATCAT GGCTGATATT GAAGGCATAG AGCATGCAAT GAGCCACTCA	2400
ATACCAAAGG TGGGCGGCAT GGTACTGTTT TTCCCATTA TATCTGTAAT GATGCTAGCG	2460
GGCAATGTCA AGATGGGTTT AGCTGTAATT ATTCCATCTA TTTTAAGCTT TATATTTATA	2520
CCTTTATCTA AAAAATATCA GGTAAATGGA CAGAATAGAT ATTATGATGT CTTAAGAAAA	2580
AACTCAGAAA GCTTTCAAGA AAATATCGAA ATGCAAATGG AGATTAAAGC ATATAATTTA	2640
TCGAAGGATA TTAAAGATGA CTTATATAAA AAAATGGAAG ATAGTGAGAA AGTACACTTA	2700
AAGGCGGAAG TAACTACAAT TTTAACTTTG TCTATATCTT CAATATTTAG CTTTATATCT	2760
CTTGCTGTTG TGATATTTGT CGGCGTAAAT CTAATTATTA ATAAAGAGAT AAATCTCTC	2820
TACCTTATAG GATATTTACT AGCTGCTATG AAGATAACAG ACTCTTTAGA TGCATCTAAA	2880
GAGGGCTTGA TGGAAATATT TTATTTATCG CCCAAAATAG AAAGATTAAA AGAAATTCAA	2940
AATCAAGATT TACAAGAAGG CGATGACTAT AGCTTAAAAA AATTGATAT TGATCTAAAA	3000
GATGTTGAGT TTGCCTACAA TAAAGACGCA AAAGTTTAA ATGGTGTAAG TTTTAAAGCT	3060
AAGCAGGAG AGGTCACTGC TTTGGTAGGT GCAAGTGGCT GCGGTAAAC AACTATCTTG	3120
AACTTATAT CAAGACTTTA TGATTATGAC AAGGGACAAA TCTTAATCGA TGGCAAAGAT	3180
ATAAAGGAAA TATCAACAGA ATCCCTTTTT GATAAGGTGT CTATTGTTTT CCAAGATGTG	3240
GTCTCTTTA ATCAAAGCGT TATGGAAAAT ATTAGAATCG GTAAGCAAGA TGCAAGTGAC	3300
GAAGAGGTTA AAAGAGCAGC AAAACTTGCA AATTGCACAG ATTTTATAGA AAAAATGGAT	3360
AAAGGTTTCG ATACAGTTAT TGGTGAAAAC GGAGCTGAGC TATCAGGAGG AGAAAGACAA	3420

1143

AGATTATCAA TAGCCAGAGC CTTCTTAAAA GATGCGCCGA TATTGATCTT AGATGAGATA	3480
ACAGCAAGCC TTGATGTTAA CAACGAGAAA AAGATTC AAG AGTCTTTAAA TAATTTAGTT	3540
AAAGATAAAA CTGTTGTAAT CATTTCACAT AGAATGAAAT CCATAGAAAA TGCAGACAAG	3600
ATAGTAGTTC TTCAAAACGG AAGAGTAGAA AGCGAAGGTA AGCATGAAGA GCTTTTACAA	3660
AAATCAAAAA TTTACAAAA TTTAATAGAA AAGACAAAA TGGCAGAAGA ATTTATTTAT	3720
TAGGAGGACT ACAATGGATA ATAAAAATT AAAAGTAAAA GATTTAGTAA GCATCGGTGT	3780
TTTTGGCGTA ATTTATTTTG CCTTCATGTT TGGAGTTGGT ATGATGGGCT TGATTCCAAT	3840
ATTGTTCTTA ATATACCCGA CAGTATTAGC CATAGTTGCA GGAAGTGTG TTATGTTATT	3900
TATGGCTAAG GTTCAAAAGC CATGGGCACT ATTTATATTT GGTATGATAT CACCACTTGT	3960
GATGTTTGCA GCTGGTCATA CCTACGTAGT TGTGGTTTTA TCACTTATAG TAATGATAAT	4020
AGCAGAATTA ATTAGAAAGA TTGGTAATTA TAATTCATTT AAATACAATA TGCTTCTTAA	4080
TGCAATCTTC AGCACATgGA TATGTAGCTC TTTAATGCAA ATGCTTTTAG CAAAAGAAAA	4140
ATATATGGAG TGGTCTTTGA TGAATATGGG AAAAGATTAT GTTGATGTAT TAGAAAAGTT	4200
AATAACTTAT CCTCACATGG CTTTAGTAGC CTTAGGTGCT TTCTTAGGAG GAATCTTTGG	4260
AGCATATATA GGCAAGGCTC TATTGAAAAA ACACTTTTCA AATGGATTAT ATTGTGTGGG	4320
ATACTTTACT CCTTGCCTAA TTTTATGGTG CTATCTGAAT TAAACCCCTAT AGTTAAGATG	4380
TTTTTGAGTA TACCTATTGT TATTAGAATG TTTATTTTAC CATTATATGCC AGCAAGCTTT	4440
ATGATAAAGA CCTCGGATGT AGGCGCAATA ATTTATCATGA TGGATAAGCT TAAGATTTC	4500
AAGAATGTAT CCATACCTAT TGCAGTTATG TTTAGATTCT TCCCATCTTT TAAGGAGGAG	4560
AAGAAAAACA TCAAAATGGC TATGAGAGTA AGAGGGATAA ATTTTAAAAA CCCAGTCAA	4620
TATCTTGAAT ATGTTTCTGT GCCACTACTC ATTATATCAT CTAATATATC AGATGACATT	4680
GCAAAAGCGG CAGAAACAAA GGCAATAGAA AATCCAATTG CCAAGACCAG ATACATTCGC	4740
GTAAGATAC AGCTAATTGA TTTTGTTTAT GTTTTAGCGG TTGCTGGACT TATTGTGGGA	4800
GGCTTAATAT GGTGAAATA AAAAATTTAA GTCTTGATTA TGGTGAAGAG CATATATTAG	4860
ATGATATATC ACTATCCATA GCCGAGGGAG AGTGCCTGCT ATTTACAGGA AAAAGTGGAA	4920
ATGGTAAGTC ATCTTTAATA AATCAATCA ATGGACTAGC TGTAAGGTAT GATAACGCAA	4980
AGACAAAGGG CGAAATAATT ATTGATGGTA AGAATATAAA AAATTTGGAA CTTTATCAAA	5040
TCTCAATGCT TGTTTCAACT GTTTTTCAAA ATCCTAAGAC ATATTTTTTT AATGTCAATA	5100
CGACATTAGA ATTATTATTT TATTTGGAAA ATATCGGTCT TGCAAGAGAA GAGATGGACA	5160

1144

GGCGTTTGAA GGATATACTT GAGATATTCC CGATAAAAAA TCTTTTGAAC AGAAATATAT	5220
TTAATCTATC CGGCGGTGAA AAACAAATTC TTTGCATTGC AGCTTCTTAT ATAGCAGGTA	5280
CAAAGATTAT AGTTATGGAT GAGCCTTCAT CGAATTTAGA TATTAAAAGC ATAAGTGTTT	5340
TGGCAAAGAT GCTAAAGATA TTAAAAGAGA AAGGCATAAG CATAATTGTT GCAGAGCATA	5400
GAATTTATTA TTTGATGGAC ATAGTTGACC GTGTATTTT AATAGATAAA GGAAAGCTTA	5460
AAAAACTTA TACTAGAAGT GAATTTTAA AGCTAGATAA AAATGAATTA AATGCTTTAA	5520
GTTTAAGAGA TAAAGAATTA AGTAAATTAA AAGTTCCTTA TTAAAAGAA GGTGGAGAGT	5580
ATCAGATAAA AAATCTTAGT TACAAATTTA CTGATGATGA GTGTTTAAGC TTAAAAGATA	5640
TTTCGTTCAA GCTTGGGAAA ATTTATGGCA TAATAGGATC CAACGGACGA GGAAATCAA	5700
CGCTTTTAAG ATGTTTAATA GGTCTTGAGA AAAAATCAA AGAAGAAAT TATTTTAAGG	5760
GAGAGAAGCT ATCTAAAAA GAAAGACTCA AAAACTCTTC ACTTGTATG CAAGATGTAA	5820
ATCATCAATT ATTCACAGAT GAAGTATTCA ACGAGCTTAG ATTAGGAGTA AAGAATTTTG	5880
ATGAAGAAAA GGCGAAAATC ATTTTAAACC CCAATTATTC ACCCAAATC TAAAAACCAT	5940
CCAGAACTCT TGCCTTAGCT TAGATCCTGG ATGGTTTCTT TTTTCACCCA ATGGGTGTTT	6000
TTTACTAGAC AAAAAGAGT TTCCCTTTA TGGTATAAGT GTAGAAAAA ACACAAAAAG	6060
AAAGGAACT CACATGAACA GTTTACCAA TCATCACTTC CAAAACAAGT CTTTTTACCA	6120
ACTATCTTTC GATGGAGGTC ATTAAACCCA GTATGGTGGT CTTATCTTTT TTCAGGAAT	6180
TTTTTCCCAG TTGAAACTAA AAGAGCGGAT TTCTAAGTAT TTAGTAACGA ATGACCAACG	6240
CCGCTACTGT CGTTATTCGG ATTCAGATAT CCTTGTCAG TCCCTCTTC AACTGTTAAC	6300
AGGTATGGA ACGGACTATG CTTGTAAAGA ATTGTCAGCT GATGCCTACT TTCCAAAT	6360
GTTGGAAGGA GGGCAGCTTG TTCACAGCCA ACCTTATCCC GTTTTCTTTC CAGAACTGAC	6420
GAGGAAACAG TCCATAGTTT GCGATGCCTC AACCTTGAAT TGGTCGAAT CTTTTACAT	6480
GTTCAACCAGC TG	6492

(2) INFORMATION FOR SEQ ID NO: 189:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7174 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 189:

AACTGAAGGT AAAGGCTTCG ACGCAGAACG TGACGCTGCC CAAGCTGCCC TTGATGACCT	60
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1145

TAAGAAAGCT CAAGAAGACA ACAACTTGGA CGACATGAAA AAAAACTTG AAGCATTGAA	120
CGAAAAAGCT CAAGGACTTG CTGTTAAACT CTACGAACAA GCCGCAGCAG CGCAACAAGC	180
TCAAGAAGGA GCAGAAGGCG CACAAGCAAC AGGGAACGCA GCGCATGACG TCGTAGACGG	240
AGAGTTTACG GAAAAGTAAG ATGAGTGTAT TGGATGAAGA GTATCTAAAA AATACACGAA	300
AAGTTTATAA TGATTTTGT AATCAAGCTG ATAACTATAG AACATCAAAA GATTTTATTG	360
ATAATATTCC AATAGAATAT TTAGCTAGAT ATAGAGAATT ATATTAGCTG AACATGATAG	420
TTGTATCAAA AATGATGAAG CGGTAAGGAA TTTTGTACC TCAGTATTGT TGTCTGCATT	480
TGTATCGGCG ATGGTACCAG CTATGATATC ATTAGAAATA CAAACATATA AATTTGTAAT	540
ACCGTTCATA ATTGGTATGA TTTGGACAGT AGTTGTATTT CTTATGATCA ATTGGAATTA	600
TATAGGCAAA TACTAAGAAG AGACAAAAAT ATATAAATAT TTCTGTACTT ATAGGATATT	660
TAAATCAAAA ATAAAGTTAA TTTACTTATT TGCAGAGGTT GCAACCCAGC CTCTGTTTTT	720
CGATAAAAAG GGACGGAATC TCATTTGTTT GGGTTTGTG TCATCAATAG AAAGGAACAA	780
AGAGTGTTTCG TAACTGAACA CGGGTTTCAG AATTTCCTAC TAAATATAAA AGAAAGGAAT	840
TGAACCCGAC CTAATGGTG GTTCGATTCA GAACATCAAT AGAAAGGAAT AAGGGTGTTT	900
GTAAGTGAAC ACGGGCTATG GACTGTGCCA AAAAGATAGT TTTTCTAGG ACGTAAGCGT	960
CCGTCGTCAA AACTCCTAGA TGGCTGTGTC CGTTTGACGC CCTTTGTATC TTGAATTATG	1020
AACAATACTG AATTTTATGA TCGCTGCGG GTATCCAAAA ACGCTTCGGC AGACGAAATC	1080
AAAAAGGCTT ATCGTAAGCT TTCCAAAAA TATCACCAG ATATCAACAA GGAGCCTGGT	1140
GCTGAGGACA AGTACAAGGA AGTTCAAGAA GCCTATGAGA CTTTGAGTGA CGACCAAAAA	1200
CGTGCTGCCT ATGACCAGTA TGGTGCTGCA GGCGCCAATG GTGGTTTTGG TGGAGCTGGT	1260
GGTTTCGGCG GTTCAATGG GGCAGGTGGC TTCGGTGGTT TTGAGGATAT TTTCTCAAGT	1320
TTCTTCGGCG GAGGCGGTTT TTCGCGCAAT CCAAACGCTC CTCGCCAAGG AGATGATCTC	1380
CAGTATCGTG TCAATTTGAC CTTTGAAGAA GCTATCTTCG GAACTGAGAA GGAAGTTAAG	1440
TATCATCGTG AAGCTGGCTG TCGTACATGT AATGGATCTG GTGCTAAGCC AGGGACAAGT	1500
CCAGTCACTT GTGGACGCTG TCATGGCGCT GGTGTCATTA ACGTCGATAC GCAGACTCCT	1560
CTTGGTATGA TGGTCGCCA AGTAACCTGT GATGTCTGTC ACGGTCGAGG AAAAGAAATC	1620
AAATATCCAT GTACAACCTG TCATGGAACA GGTCATGAGA AACAAAGCTCA TAGCGTACAT	1680
GTGAAAATCC CTGCTGGTGT GGAAACAGGT CAACAAATTC GCCTCGCTGG TCAAGGTGAA	1740
GCAGGCTTTA ACGGTGGACC TTATGGTGAC TTGTATGTAG TAGTTTCTGT GGAAGCTAGC	1800

1146

GACAAGTTTG AACGTGAAGG AACGACTATC TTCTACAATC TCAACCTCAA CTTTGTCCAA	1860
GCGGCTCTTG GTGATACAGT AGATATTCCA ACTGTTACAG GTGATGTTGA ATTGTTATT	1920
CCAGAGGGAA CTCAGACTGG TAAGAAGTTC CGCCTACGTA GTAAGGGGGC ACCGAGCCTT	1980
CGTGGCGGTG CAGTTGGTGA CCAATACGTT ACTGTTAATG TCGTAACACC GACAGGCTTG	2040
AACGACCGCC AAAAAGTAGC CTTGAAAGAA TTCGCGGTG CTGGTGACTT GAAAGTAAAT	2100
CCAAAGAAAA AAGGCTTCTT TGACCATATT AAAGATGCCT TTGATGGAGA ATAATACTCT	2160
TCGAAAATCT CTTCAAACCA CGTCAGCGTT GCCTTGCCGT ATATATGTGA CTGACTTCGT	2220
CAGTCGTATC TACAACCTCA AAACAGTGTT TTGAGCAGCC CGTGGCTAGT TTCTAGTTT	2280
GCTTTTACTT TTATAGATTT TTTAAGACTT TCCTAAGTAA TGACGGACGG TAGTGACCTC	2340
CTTCGAAGTT CCATACCTAA ACTTTGAACC TAAGTTTAA AGTTTCCGGA CAGCTGAAAC	2400
CAAGCTGTTT CAGGTGTTTT CATTACGGCA GAAAGTCTTC GATTTAGTTG TGAAATGGTG	2460
AATGATACTC TTCAAAAATT TCTTCAAACC ACGTCAGCGT CGGCTTGTC TGGGTATGGT	2520
TACTGACTTC GTCAGTTCTA TCCACAACCT CAAAACAGTG TTTGAGCTGA CTTTCGTCAGT	2580
TCTATCCACA ACCTTAAAC GGTGTTTTGA GCAGTCTGTG CCTAGCTTTC TAGTTTGCTT	2640
TTTGATTTTT ATTGAGTATG AATTACCTAA ATTATGATGC ATAGTTGATG GGATATATAT	2700
AATAGATTGA AATAGAATAT GAACAAATG ATAAGAGGAT TTTAAAGTAA TCTCTAACAA	2760
TGCTTTAGAA ACTATGGTGT GCTATTCTAA ATTCAATTCA CTATAACTTG TTTACGTTTT	2820
AAAAAGAGC CGTCGGGCTC TTTTACTTA TCTTCAGTTC CCTGCATTTC TTTTATCACA	2880
GCTAGTCTAG TCTGGATATC CTTTCCAAAG ACCTTAAACT TGTAAGTCAA GTCTTCTTGG	2940
TATTCCTTGA TAAGTCTTT TTGCTGGTTA ATGATTTGCA GGCTGTTTTG GATAATATCC	3000
ACATCGTCCT TGATAGCTTG AACGCGGTCA GTGGTATTCA AGACTTCATC TGTGATGGTT	3060
TGGCGATTTT TTGTAACCAG ATAACCTCCG GCTGCAGCTC CTGCAAATAG CAGTAGGTTG	3120
GATAATTTCA TAGCAACTCC TTAAGCGTTT TTGATGGTTT CAGCGACTTG AGCAAAGTTG	3180
TCAAAGTCTG GTTCGTGGGC GATAAAATCA ATCTTGAGGT CATCGTCAGC ACTGTAGCGA	3240
GGCACAAGGT GAACGTGAGT ATGAAAACT GTTTGACCAG CGACTTCTTC ACAGTTGGAA	3300
ATGATATTCA TACCAGCAGC CTTAGTGACT TTCATGACTT TTTGAGCTAC TTTTGGTACT	3360
TGGGCAAAGA GTTGGCTGGC GCTCGTAGCA TCCATCTCCA AAAGATTGCG ATAGTGTCT	3420
TTTGGCACGA CCAAGGTGTG TCCTAGTGTT ACTTGAGAGA TATCAAGAAA GGCAAGGACC	3480
TGCTCATCTT CATATACTTT TGAAGCAGGA ATTTCCCTCG CGATGATTTT ACAAAAAATG	3540
CAATCTGACA TAAATCTAC CTCTACTGTA CTGAATTTTG ATATAATATA GCTACATTAT	3600

1147

ACCAGATTTG GAGAAAATAT GTTAGAAATT AAAAACCTGA CAGGTGGCTA TGTTCATGTT	3660
CCTGTTTGTGA AAGATGTGTC CTTTACTGTT GAAAGTGGGC AGTTGGTCGG TTTGATTGGT	3720
CTCAATGGTG CTGGGAAATC AACGACGATC AATGAGATTA TCGGTCTGTT GGCACCTTAT	3780
AGTGGCTCCA TCAATATCAA TGGCCTGACT CTGCAAGGAG ATGCGACTAG CTACCGCAAG	3840
CAGATTGGCT ACATTCTCTGA GACGCCTAGT CTGTATGAGG AATTGACCCT CAGAGAGCAT	3900
ATCGAAACGG TTGCTATGGC TTACGGTATT GAGCAAAAAG TGGCTTTCTGA ACGAGTAGAG	3960
CCCTTGTTAA AAATGTTCCG TTTGGAACAG AAATTAGACT GGTTCCCTGT TCATTTTTC	4020
AAAGGGATGA AGCAGAAGGT CATGATTATC TGTGCTTTG TGGTGGATCC AAGTCTTTTC	4080
ATCGTGGATG AGCCTTTCCT TGGTCTTGAT CCGCTGGCTA TTTCTGATTT GATTTCAGCTT	4140
TTGGAAGTGG AGAAGCAAAA GGGCAAGTCT ATTCTCATGA GTACCCACGT GCTGGATTCTG	4200
GCGGAGAAGA TGTGTGATGC CTTTGTCAAT CTTCAACAAG GAGAGGTGCG TTCCAAAGGC	4260
AATCTCTGTC AACTACGTGA AGCCTTTGAT ATGCCTGAGG CTAGTTTGAA TGATATTTAC	4320
TTGGCTCTGA CCAAAGAGGA GGATCTATGA AAGACTTGTT TTTAAAGAGA AAGCAGGCCT	4380
TTGTAAGGA GTGTCTTGGT TATCTGCGCT ATGTGCTCAA TGACCACTTT GTCTTGTTCC	4440
TGCTTGTCCT GTTGGGCTTT CTAGCCTACC AGTACAGTCA ACTCTTACAA CATTTTCCTG	4500
AAAATCATTG GCCTATCCTT TTGTTGTAG GAATTACGTC TGTTTACTT TTACTTTGGG	4560
GAGGAACTGC CACCTATATG GAGGCTCCAG ACAAGCTCTT TCTCTTAGTT GGAGAAGAGG	4620
AAATTAAGCT CCATCTCAAG CGTCAAACTG GCATTTCCCT AGTCTTTTGG CTCTTTGTAC	4680
AGACCCTTTT CTGTCTGTTA TTTGCGCCTT TATTTTtagc AATGGGTTAT GGCTTGCCAG	4740
TTTTTCTGCT CTATGTGCTT TTATTGGGGG TAGGAAAATA TTTCCACTTT TGTCAAAAGG	4800
CCAGCAAATT TTTCACTGAA ACTGGACTGG ACTGGGACTA TGTTATTTCT CAAGAAAGCA	4860
AGCGTAAGCA AGTCTTGCTT CGTTTCTTTG CCCTCTTTAC GCAGGTCAAG GGAATTTCAA	4920
ACACGTTAA GCGTCGTGCC TATCTGGACT TTATTTTAAA GGCTGTTTCAAG AAGGTGCCTG	4980
GGAAGATTG GCAAAATCTC TATCTGCGTT CTTATCTGCG AAATGGCGAC CTCTTTGCTC	5040
TCAGTCTTCG TCTTCTCTTG CTTTCCTTGC TGGCGCAGGT TTTTATCGAG CAAGCTTGGA	5100
TTGCGACAGC AGTGGTAGTT CTCTTTAACT ACCTCTTGCT CTTCCAGTTG CTGGCCCTCT	5160
ATCATGCTT TGAATACCAAG TATTTGACCC AACTCTTTCC GCTGGACAAG GGGCAAAAGG	5220
AAAAAGGCTT ACAGGAGGTA GTTCGAGGAT TGACCAAGTT TGTTTACTT GTGGAATTAG	5280
TTGTTGGGTT GATTACCTTC CAAGAAAAC TAGCCCTTCT AGCCTTACTA GGAGCTGGTT	5340

1148

TGGTTTACT AGTCTTGAT TTGCCTTATC AGGTAAAACG TCAGATGCAG GACTAACATT	5400
GCTGATACGA CACTAAAAAA GAAGTTGAGT TCAGTCTGTC TCAACTTCTT TTTTGTTACT	5460
ACAGGATAAT GGTGGTCCG TAGAGACTTA TACTCTTCGA AAATCTCTTC AAACCACGTC	5520
AGCGTCGCT TACCGTACTC AAGTACAGCT TCGGCTAGC TTCCTAGTTT GCTCTTTGAT	5580
TTTCATTGAG TATTAACTTG GTCTTGACTT GGTCAAAGTG GAAGCGGTCA TAGGCCCGCC	5640
AAGCGGCGC AGTTGGAGCA TCTGGATCAA GAGCGCTGAG TCCCATGAGA AGACTGGAAG	5700
TCTGGTAAAA TTTTCTAGT TCAATCAAGA ATCGATTATC CACTGTTTCA GCCTTGCTA	5760
GAAAACCAAG AATAGAGTTT AATTGCTCCT GAAAGCGGAC GTCGTCAGCG CTGCTGTT	5820
TGCATGCTTG GTAGGCTTTG TTTAAGTCAG TAATCAAAGT ATGAGCTCTT TTGATGGGGT	5880
CTGTATCTGT CATGGGAATG CCTCCTTTAA TCTGGGTGCC AGTCTTACTT CTGGCAACTG	5940
TGTTTGTATA CTGTTAGTTT ATCACTTTTA ATTCTTTTTT TTTATTCAAA TCTTTAATTG	6000
TCATTGAAAT GTCTTGAATT GCGCTGAGTG AATTTTATGA TAAAATAGTT GTAAGCTCAT	6060
CATGATGTTG TAGAAAAATA TCCTTTTAGG AGTTTTCAAA GACTGTTTAG GATTGGGTGT	6120
GCTTGGGCTA GACCTTTTCT GTTATTCTTT TCTTAGGAGG AGAATCCAAT GAAATATATG	6180
ATTATTCAAG CGCAGAAAAC AGTCTATAAA GTAAACATCG ACGATATCTA CTATATCCAA	6240
ACACATCCAA CTAAAGCCCA TACCGTACAG ATTGTTACAG AAGAAGCTAG TTTTAATATG	6300
CTTCAAAAT TAAGTAATCT TGAGAACCAA TGTGGGGAAG CCTTGATGAG ATGTCATCGA	6360
AATTGTTTGG TTAATCTTGA TAAATTAAAA TCGATTGATT TTCAAGAAAG AATCCTTTTT	6420
CTCGGAGAAG AAGGTCAATA CGCTGTCAAG TATGCCAGAC GTCGCTATAG AGAAATTCGT	6480
CAAAATGGT TGAAAGAGGG AGAGTAAGAA GATGAGAATA TTTGTTTTAG AGGATGATTT	6540
TTCCCAACAG ACTAGAATTG AAACGACGAT TGAGAAACTT TTGAAAGCAC ATCATATCAT	6600
TCCTAGCTCT TTTGAGGTAT TTGGCAAGCC GGACCAACTG CTGGCTGAAG TGCATGAGAA	6660
GGGGGCCCC CAGCTATTCT TTTTGATAT TGAGATTCTA AATGAAGAGA TGAAGGGACT	6720
GGAAGTGGCT AGAAAGATTC GGGATCGGGA TCCTTATGCC CTGATTGTCT TTGTGACGAC	6780
TCACTCGGAG TTTATGCCCC TGTCTTTTCG CTACCAAGTG TCTGCTTTGG ACTACATTGA	6840
TAAGGCCTTG TCAGCAGAGG AGTTTGAATC TCGGATCGAG ACAGCCCTCC TCTATGCCAA	6900
TAGTCAAGAT AGTAAAAGTC TGGCGGAAGA TTGCTTTTAC TTTAAATCAA AATTGCCCCA	6960
ATTTCACTAT CCTTTTAAAG AGGTTTACTA TCTCGAAACG TCGCCAGAG CCCATCGTGT	7020
TATTCTCTAT ACCAAGACAG ACAGGCTGGA ATTTACAGCG AGTTTAGAGG AGGTTTTCAA	7080
GCAGGAGCCC CGTCTCTTGC AGTGCCACCG CTCTTTTCTC ATCAATCCTG CAAATGTGGT	7140

1149

GCATTGGAT AAGAAAGAA AACTGCTTTT CTTT

7174

(2) INFORMATION FOR SEQ ID NO: 190:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3207 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 190:

CCACCAGGGA AAATCATTGA AGTTGGTAGT CACCAAGAGT TAATGCAGGC GCAAAGTTTC	60
TACCATCATC TATTCAATAA ATAAGGAGAA TGTCATGAAT CCTAATCTTT TTAGAAGCGT	120
CGAGTTTAT CAGAGACGTT ACCATAACTA TGCGACAGTG TTAATTATAC CTCTTTCATT	180
ACTATTACT TTCATCTTGA TTTTCTCCCT TGTGGCCACA AAAGAAATTA CTGTTACTTC	240
CCAAGGAGAA ATCGCCCTA CagTGTCATT GCCTCCATTC AGTCAACCAG TGATAATCCT	300
ATCCTAGCTA ATCATTTAGT GGCAATCAA GTAGTGAAA AAGGGGACTT ACTCATCAA	360
TACTCTGAAA CAATGGAAGA AAGTCAGAAA ACTGCCTTAG CAACTCAATT ACAAAGACTT	420
GAGAAGCAAA AGAAGGACT TGAATTTTG AAACAAAGCT TAGAAAAAGC GACTGATCTT	480
TTTCTGGCG AGGATGAAT TGGCTACCAT AATACCTTTA TGAATTTTAC TAAACAATCC	540
CATGATATTG AACTGGGTAT CACAAAGACT AACACCGAAG TTTCAAATCA AGCTAATCTT	600
TCCAATAGCA GTTCATCAGC TATTGAACAA GAAATTACAA AAGTTCAACA ACAAATTGGA	660
GAATATCAAG AGTTGAGAGA TGCTATCATA AATAACAGAG CACGCTTACC AACTGGCAAT	720
CCGCACCAGT CAATTTTGAA TCGTTATCTT GTAGCCTCAC AAGGACAAAC ACAAGGAAT	780
GCAGAGGAGC CATTTTATC TCAAATTAAT CAAAGTATTG CAGGTCTTGA ATCATCTATC	840
GCAAGCCTCA AAATTCAGCA AGCTGGTATC GGAAGTGTAG CAACTTATGA TAACAGTTTA	900
GCAACCAAAA TTGAAGTACT CCGCACTCAG TTTTACAGA CAGCCTCACA GCAACAACCTA	960
ACTGTGGAGA ATCAATTAAC AGAATTAAAA GTACAACTAG ATCAAGCCAC ACAGCGTTTG	1020
GAAACAATA CCTTAACCTC CCCAAGTAAA GGTATCGTTC ATCTGAACAG CGAATTTGAA	1080
GGTAAAAATA GAATTCCAAC TGGTACAGAA ATTGCTCAA TATTCCCTGT CATCACAGAT	1140
ACAAGAGAAG TACTAATCAC TTACTACGTA TCTTCTGACT ATCTACCTCT ACTAGATAAA	1200
GGACAACTG TAAGATTAAA ACTGGAGAAG ATTGGAAATC ACGGCACCAC CATCATCGGC	1260
CAACTTCAGA CAATTGATCA AACTCCTACC AGAACAGAGC AAGGAAATCT CTTTAAATTA	1320

1150

ACCGCTCTTG CAAAACTATC TAACGAGGAT AGTAAACTCA TCCAATATGG CTTACAAGGT	1380
CGCGTCACTA GTGTAAGTAC AAAGAAAACA TATTTTGATT ATTTCAAAGA TAAAATTTTA	1440
ACACATTCTG ATTAATTTTC AGATAACACT CTATAACTAT TTATTATCTT ATCAAAAAGG	1500
AGAATCATAA CATGGATAAG AAACAAAACC TAACTTCATT TCAAGAATA ACAACTACCG	1560
AACTCAATCA AATTACAGGT GGAGGATTGT GGAAGATTT ATTATATAAC ATTAATAGAT	1620
ATGCTCATTA CATCACATAA GAACTTCATC ATCCAATACA ACTATAAAAA AATAAGACCG	1680
AGAAACAAGT ACTCTCGGTC TTATTTTCA TCATTCTGTA TGTATCACAG TAAGTACCTG	1740
ACGAAAGACT TGATTTTGAC AGGTGGTATT TAGACTGGTA TTAGGATGGC TTTCCACAAT	1800
CTTCATGACG GTATAGAGAC CAACTCCTCT CTCCTCCCCT TTAGAAGTGG CTCCAAAGGA	1860
GAAGATTTC AATATATCGA TGCCCTCTTC TTGATGGAG TTTTCGATGA TAAAGGTCTC	1920
CTGTGCTCCA TTTTTTAAAA AGGCGATTGA AACATGAGGT TGAAGTGGT CCACACTGGC	1980
TTCAATAGCA TTGTCACAAA GGATAGACAC AATGGTTAGA AAATCAAGTA GACTCATCCC	2040
CTCGACCTGA ATCTCCTCAG GAACTTCGAC ATTAAAGACA ATGTTCTTAT CTCTGGCTTT	2100
TAAAAATTC CCTGCTAGAA GACTTTTGAG GGCTTTATCA CGAATATTTA CCAATCTGCC	2160
CAGGTCATAT TTATTGTTCT GCAATTTCTG ACTGGAATCC TTTAAGACGG AGCCATAGAC	2220
CTCTTTTATC TGCTCCATAT CCTCCTCTTC AATGCCCAGA CGTAAGCTAG TCAAGAGGTT	2280
GGTATAATCA TGACGAAAGC TCCGTACTTC CTTGTAAAGC TCCTCTATAT GCCGACTATA	2340
GCGTTCCATA TCTCTATAGC GCAGGGCCTG CTCTTGTTCC AATCTCTCAT AGAGTTTTC	2400
CTTCAAATAG GTATCCAATT TCTTGATAAC CCCCATAAAA AAGAGTAGGT AAAAGACTAG	2460
GATGAGATGG CGAACAGTCT TTGATTGAAT ACTTTGTTCA TATTCAAAAA AAGACAGACT	2520
TTCCATGACT AGATAGTAGC CACCCATTAT CCAGTTAATC TGAGTCAGGG ACTTTTGAAA	2580
GGCTTTATCG AGAATCTCCT TTCTCAAGCT AGTAAAAATCG TAGTCCAACC ATTTCAAAAA	2640
AGCTAGAGAA ATGAAGAAAT TGAAAATTAT TATACATAAC CCAGTAAATG AGTAGCCATC	2700
ATATACTTGC CCTTGTCCTA AAAATGGAAG CACAAAATAG GAGACTCCTC TATAAAAGAG	2760
ATTACCAAT ATCATTGGAA AGAGACCATA AAAGAAAAGG AGTTTTTTAG GAAGCCCTCT	2820
CAATAATAAG AAAGATAAGC CTATGCCGTA CAAGGGTTCC ATAAAATAAG ATAGGTAAAC	2880
ATTCCTACT ATATAGCTAA TCATCACAAA AACAAAGGCC AACAGTATCT TCAAAAGAAA	2940
GGCCTTAAAA ATCCTCTCGA AAGTAAGATC AATTCATCC ACCTTAAAGA AGATGACAA	3000
TTCTAGTCCA TTAGTAACAA GTGTATACAA CAATATCCAA GCAATGTTCA TAAATTCTCC	3060
TAGCTCAGTG TAATTTATTG ATGGCCTCAG AACTTCCCT GACCTTATAA CGGGCGATTA	3120

1151

GACAACTTCC ACCATTGGGA GAGAAGAGCA GTTTTCTTT CTTATCCAAA TGCACCACAT 3180
 TTGCAGGATT GATGAGAAAA GAGCGGT 3207

(2) INFORMATION FOR SEQ ID NO: 191:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10357 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 191:

CTGAATCAAG TGTACTGCAC CAGTTCGTGC ATCAGGCATA ACAACATCTA CAGATATAAT 60
 ATTGTTTTCT GAGTCCGCCT CATAAGTTAA AATCATAAAT TTTTCGATAT TCGAATTTTT 120
 AGTAGCTTGT TCAATTTCTT GAATCATTTT ATCAGAAACT AACTCCATCT GAATTGAAAA 180
 GGAATGACTA TTTTCATCAT TTTTGTAGGA AGAATGTGA TTAAGATAAA GTGTATTCAT 240
 CTGAGCATAT TCAAATAAGT AGCCACTCTT ATTTTCTTGT ACCAAAGGAA ATTGTTTGT 300
 AAGTCGCTTC TTACCCTTTA TAATTAACAA TACTTTCCCA TATTTTCTG TATTGTTC 360
 AAATCTAAA TATCCCAAG TCTGTCCTGC TAATGTAAAT TTATACTCA ACAAATCTGC 420
 TGATGCAAAAT GCAGTATCAA TATGATTAGG TCGCGTCCAT GCATAACCAT TCGACACTAT 480
 CATTGTCTCT CTTTTTCTA GACGTTTCAT TACATAATCT TTTTGCCCTT TCATCAAAGT 540
 ATCTACAATT TTTTGTGCCT CAAGCGAATC AAAGAGATCC TGATTCAACA TAATCTTCC 600
 TCCTCCAAAT ACTTTTAAAT GAATTATACC ATTTCTTAA AGAAATTACT ACAATAATTA 660
 TCTTTTCTT AAAGTTCTGT GTCAGAGTAA TTTAGAAAAT TATATCTTCT ATAGTAAAAT 720
 CAATTAAAAA CTGAACAAAT TTATTGGGAA ATTCAAATCG CTTTCTGAAA ATATTTTAGG 780
 AACCCTAGTG TAATATTCCA GATTCAATTC ACTATAAAAC TGACCTTTCT CCTGCAAAAG 840
 AAAAAGGAAA GACTTCCTTT CGTGCCTTTC CTCTTACTTG TACTTGTGT GATTATTTTT 900
 GGTAAGCTAC TGCTTGTCTG ATAAAATCCT GAATCGGCTC TCCTTGGTGG AGAGCTTTTA 960
 CTATTTTCGA ACCGACGATA ACACCATCTG ACACCGCAT GAAGCGTTCC AGATCGGCTT 1020
 GACTAGATAC ACCAAAACCT GTCAAGACTG GGATGTCGGC CACTTGATGA AGTTGCGCCA 1080
 AGTGCTTGTC CAAATCTGCA CGGTAATTGC CTGATTTCCC TGCTACTCCA TTGATGGCAA 1140
 CGGCATAGAT GAATCCCTCC GCCCCTTCAA TCAACTCTTT CTGGCGCTCA ATTCCTGTGG 1200
 TCAAGCTTAC TAAAGGAATC AAGGCGATAT CTGTATTGTC CAAAAATGGT TCTACAAAGT 1260

1152					
TGGCATGTTC	ATGAGGCAGG	TCTGGGATAA	TCAAGCCCTT	CACAGCTGTA	TCAGCCAGAT 1320
CTTTGACAAA	GTTCTCCACA	CCGTACTGAA	AGAGGGGGTT	GAAGTAGGTC	ATGATGACCA 1380
GTGGAATCTC	TGTTTCAATG	GTTTTCAAGG	TTTCAACTAA	AGCCTGGGTA	GAGGTCCCGT 1440
GGGCTAAACT	GCGCAAGCCA	GCTTCTTCGA	TAACAGGTCC	ATCTGCAACA	GGGTCTGAAA 1500
AGGGAATACC	CACCTCAATT	GCAGAGACAC	CCAAATCTTC	TAAAAAGTGA	ATTGTTTCAG 1560
CAAGACCGTC	CAACCTTTC	TCGTGGTCAC	CAGCCATGAT	ATAGGGAACA	AAAATTCCTT 1620
TTCCAGCTGC	TTAATAGCA	TTAATTTTT	CTGTTAGTGT	CTTAGGCATG	AGCTTCTCCC 1680
TTCTTTGCTG	CATCTGCTTC	CAAGCGGTCC	TTGACTTGAA	CCACATCCTT	GTCCCCACGA 1740
CCTGATAGGC	AGACAATCAT	AGACTTTTCT	GGTCCAAGTT	CTTTGGCCAA	TTTCACCGCA 1800
AAGGCGATAG	CATGGCTAGA	TTCCAAGGCT	GGGATAATCC	CTTCCACACG	AGACAAGAGT 1860
TGGAATCCTT	CCAAGGCTTC	TTCGTCTGTC	ACAGGGACAT	AGCTGGCACG	TTTAATATCG 1920
TGGTAGTGAG	AATGCTCTGG	ACCGATACCA	GGATAGTCCA	AACCTGCTGA	GATAGAGAAG 1980
GCTTCAAGAA	TTTGACCATG	GGCATCTTGG	AGCACATCCA	TGAGGGAACC	GTGAAGGACA 2040
CCTGGACGAC	CCTTGGTCAA	GGTAGCTGCG	TGGTGCTCTG	TATCCACACC	AAGCCCTGCT 2100
GCTTCAGTTC	CATACATAGC	TACTGACTCA	TCTTCTACAA	AGGGATGGAA	GAGCCCGATA 2160
GCATTCGACC	CACCACCAAC	ACAGGCTACT	AGGGCATCTG	GCAGATCTCG	ACCTGTCAAG 2220
TCACGGTACT	GTGTTTAGC	CTCTCGACCG	ATGACACTTT	GGAAGTCACG	AACGATTTCT 2280
GGAAATGGAT	GAGGCCCCAA	GGCAGAACCA	AGGATATAGT	GGGTATCGTC	GATATTAGCC 2340
ACCCATGAAC	GAAGGGCTGC	ATTGACCGCA	TCCTTGAGCA	CGCGCGAACC	ATCTGTTACA 2400
GCCTCGACCT	TGGTCCCAA	AAGCTCCATG	CGGAAGACAT	TGAGGGCTTG	GCGTTTGACA 2460
TCTTCCTCAC	CCATGTAGAT	GGTACATTCC	ATGTTAAAGA	GGGCTGCAGC	AGTTGCAGTT 2520
GCCACACCGT	GCTGACCAGC	ACCCGTTTCT	GCGATAATTT	TCTTTTACC	CATGCGTTTG 2580
GCAAGCCAAA	CTTGTCCTAA	GGCATTGTTA	ATCTTGTTGG	CTCCTGTATG	GTTAAGGTCT 2640
TCCCGTTTGA	GATAAATCTT	GGCTCCGCCA	ATATGCTGGG	TCAAGTTTTT	TGCGTAATAA 2700
AGAGGAGTTT	CACGTCTTAC	GTAAGTGGCG	AAAAGCTGGT	TTAATTCCTC	TTGGAAACTT 2760
GGGTCTGCCT	GACTTTCACG	GTAGGCCTTC	TCCAACCTCA	AAACTGCTGT	CATCAATGTT 2820
TCTGGGACAA	AACGTCCGCC	GAATTTTCCG	TAAAAATCCAT	CTTTATTTCG	TTCTGATAT 2880
GCCATGCTTT	ACCTCTCTTA	TAAATCTTCT	AATCTTTTCA	TGATCTTTT	GTCCATCTGT 2940
CTCCACTCCG	CTCGATACAT	CTACTGCATA	GGGAGTAAAG	TGTTGAATTG	CTTTTACTAC 3000
ATTATCTTCA	TTAAGGCCAC	CTGCGATAAA	GAAGGGCTGT	GCTAGTCCAG	TCGTATCCAG 3060

1153

TTGACCCCAA TCAAAGGGCT GGCCACTTCC TGCCACAGGG GCATCAAAGA GTAGATAATC	3120
TGCCTGAGAA TTGGGGACAT GCCCATTTCC ATCTACCTGC ACAGCCTGAA TACTGGCACA	3180
AGGCCAAATC TCAAATAAAT CATCTGCCAC CTGACCGTGA ACTTGAACCA AGTCCAAGCC	3240
AACTTTGTCA ATCGCTTCCA GCAGTTCTAC CCGACTTGGT GAAACAAATA CTCCAACCTT	3300
TTTCACATCT GCAGGAATAA GCTTTGCCAA CTCAGCTGCC TCTTCTAAAG TCACCTGTCT	3360
TTTACTAGGT GCAAAGACAA AACCGATATA GTCGGCTCCT GCTGAAACGG CTGTTTCCAC	3420
CGCTTCTTTG GTCGATAGTC CACAAATTTT AACCTTTGTC AATCTGCAAC TCCTTGATTG	3480
TCTGGGCCAC ATTTTCTGCC TGCATAAGAG CTGTCCCTAC CAAAATTCCG TTAAAGTATG	3540
GGGCTAGTCG TTCCGCATCC TGCCCTGTGA AAATGCGAGA TTCAGAAATG TAATAGCGAC	3600
CTTCTCAAAA GTAAGGGGCT AAATCTACAC TGGTCTGCAA GTCGACCTCA AAGGTAGTCA	3660
AGTTGCGGTT GTTGACCCG ATAATCTCAG CACCAAGTCT GTGGGCTACC TCTAGTTCAG	3720
CTAGATTGTG AGTCTCCACT AAGACTTCCA GACCAAGCTC TGTCGCGTAG TCATACAGTT	3780
CCTTGAGGCG TTCTTCGGAC AAGGCTGCCA CAATGAGCAA GATAACTGTC GCACCTGCAT	3840
TGCGAGCGCG GATGATTTGC TTTTCATCGA TGATAAAGTC TTTGTTGAGC GTCGGAATCT	3900
CTACCTGACT GGAATTTTCC CGTAGATAAT CCAATGCCC TTAAAGAAA ACCTCATCTG	3960
TCAACACCGA AATCATCACT GCTCCGTTTT CTTCATAAGT CTGGGCCTGT TGCACAATAT	4020
CCACATCGAG ATTGATATCT CCCAACTAG GGCTAGCTTT CTTGACCTCA GCGATTACCT	4080
GCAAGCGGTC CTGATGATTC TTCAAAAATT CTGCCAAGCG ATAGGTCTGG CGCAGAGGCT	4140
GGATTTGCTC CAGCTTCATC TGCTCCACCT CACGCGCCTT CTGCTCTAAG ATTCTGTGCTA	4200
AAAATTCCTG ACTCATTTTT GGTACTCCTG TAACAGTCTG AGTTTTTCAA GGGCCTTGCC	4260
TCTAGCAATC ACTTGACGGG CCAAGGCAAC CCCTTCCTTG ATGCTATCAA TCTTACCATT	4320
AGCATAGAAA CCAAGACCAG CATTCAAGAC TGTCGTTTCC AAGAATGGAC TTGCTTCGTT	4380
TTTCAGAACG CTAAGCAAAA TTCTGCAAT TTCTTGAGCA TTCCCACCAC GAATATCTTC	4440
CATAGCATAG CCTTCCATTC CCAATCCTC TGGAGTAAAG CTTGACAAGC TGATTTGCGC	4500
ATTTTCAAGA AGTGCAATCT TGGTTGTTCC GTTCAAGCCA GCTTCATCCA ACCCTTCTGG	4560
TCCAGCAACC ACGATGGCAC GTTTGCGACC CATATTTTTC AAAACCTGAG CTGTACTTTC	4620
TAGGAGTTCT GGACGACTAA TTCCAAGAAG CTGTGTTTCT AAAGCCATTG GATGAATCAG	4680
TGGACCAGTC AAGTTCATAA TCGTTGGAAT TCCCAATTCC AAACGAGCTG GCATGATGTA	4740
TTTCATAGCT GGGTGCATAT TTTTAGCGAA GAGAAAGACG ATTCCAGTTT TATCAAAGAC	4800

1154

CTTACCTAGT TCAGCTGGTT TGAGGTCAAG ATTGATTCCC AAGGCTTCGA GGACATCTGC	4860
GGAACCAGAT TTAGAAGATA TCGAGCGGTT ACCGTGTTTG GCCATGTGAA TACCGCCACC	4920
AGCCAAGACA AAGGCTGCAG TTGTGGAAAT ATTAAACTG AAAGACTTGT CCCCACCTGT	4980
ACCACAGTTG TCCATGGCAT CATGAATCTC AGTTGGAATA TGCTGGGCAT GTCCTCTCAT	5040
GACTTGGGCA ATGGCTGTGC GTTCTTCAGG TGTTCCTCCC TTCATCTTAA GAGCTAAGAG	5100
GAGAGAAGCA ATCTGCGCTT CAGTTACACG CCCAGTTACG ATACGCTCAA TGACATCCGT	5160
CATTTCCACA CCTGATAAAT TTTCAAATTT TGCTAGTTT TCAATAATCT CTTTCATCCT	5220
AGTTTCCTCA CTTTACAACC TCCTCGATAA AATTCCGAAT AGAAGACAAG CCGTCTGGCG	5280
TTCCAATGCT CTCTGGATGG TACTGGAAGC CATAAATCGG TAGGTTTTTA TGTGAATCC	5340
CCATGATGGC TTGGTCATCA GTCGAACGAG CTGTCACTTC AAAGTCTTCT GGCATTTCTT	5400
CAATCAAAAT ACTGTGATAA CGCATGACCG CACGGCCATC CTCAATACCT TGATACAAAA	5460
CAGATGGCGC TTCAAAGTTG ATATTGCTCT GTTCCCATG CATGACTTTT GGAGCCAAAC	5520
CTAGCTTACC ACCAAAGACT TCTGCAATGG CTTGGTGGCC CAAACAAATC CCAAGAATCG	5580
GCTTCTTGCC TGCAAAATCA CGAATCATGT CTTCCATCTT TCCAGCATCA ACTGGCCAAC	5640
CAGGACCAGG AGAAAAGACC AGACCATCTG CTTTTTCAGC TTCTTCATAC AGCTTGGAAT	5700
CATCATTTCT CAGAACCTGA ACTTCTGCAA AATTCCCAAT GTATTGGGCC AAGTTATAGG	5760
TAAAGAATC ATAGTTGTCA ATCAATAAAA TCATGGTCTT AGTTCTCCAA TTCTAGTCAT	5820
AGATTTTGCT TTGTTAATGG TTTCTTGTA TTCGTTTGG GCGATAGAGT CGTAGACAAT	5880
CCCTGCCCCA GCCTGCACAT AGGCTCTTTG ATTTTGTAGA ATCATGGTTC GGATGGCGAT	5940
GGCCAAATCC ATATCACCCG TCGCAGACAA GTAGCCGATT GCCCCAGCGT ATACTCCCCG	6000
TTTTTCCGTT TCCAGTTCAT AGATACGTCT CATCGCTCGA ATCTTTGGTG CTCCAGAAAC	6060
GGTTCAGCA GGAAGCGTTG CTTTCAAGGC ATCCATGGCA GTGAGTTCTG GAAGCAAACG	6120
CCCCTTGACT ACGCTGGTCA AATGCATGAC GTAGCGGAAG AGCTCCACTT CCATATACTT	6180
AGTGACTTGG ACACTGGTCG TTTCAGAGAT GCGGCCAATA TCGTTACGCC CCAAGTCTAC	6240
CAACATTCGA TGTCTGCTG TTTCCTTCTC ATCAGAGAGG AGGTCAGTCG CCAAGGCCTT	6300
GTCTTCTTCA TCCGTAGCCC CTCTTGGTCG CGTCCCTGCA ATCGGATTGG TTGTCACGAT	6360
GCCATTTTGG ACAGAAACCA AACTTTCTGG ACTAGCTCCG ATGATTTGAT AATCCCCAAA	6420
ATCATAGAAA TAAAGGTAAT TAGAAGGATT AGTCACGCGG AGATTCTGT AGAAGTCAAA	6480
TGGATTCCA GTAACCTCTG CTGAAAAACG CTGGCTGAGT ACACATTGGA ACATATCTCC	6540
GTTACGAATC AAGTCACGAG CTGTTTCTAC CATTCCTCA AACTTATGTG GAGCGATATG	6600

1155

CGGTTTGAAG TCTAACGGAG ATAGATCCAA ATCTTCAAAT TCATTTGGAG CAGGAATGCG	6660
TAATTCCTCA AGCACTTGGT TCAAGGATTT TTCCAAGGCC TCTTGACTGC GCTCACTATA	6720
AAGTGCATCC TCTATGACAT GTATCTTCTC CTTCTTGTGG TCAAAGACCA TATAGCTCTC	6780
ATAGACAAAG AAATGCATGT CTGGCGTCCC AATTGTATCC TCAGGGATTT GACCAATTTT	6840
TTCATAAAGC GAAATCATAT CGTAACCCAC AAAACCAATG GCTCCACCAC CAAAAGGTAG	6900
CTCTGAGTGG TGCTGACTCT TATGAATCAC TTCATAAAGG AAATCCAAGG GATCCCGATC	6960
AATCACTTGA CCATTTTGAT AGAGAACCCC ATTTTCAAAC TTAATCTCAA AAACCTGGATT	7020
ATAGGCTAGG ATAGAAAAAC GAGCTGTTC CTTGTCTCTC GGAATACTCT CTAAAAAATC	7080
CTTATGTTGC CCCTTTAAGC GCATATAAGC CAAGATTGGT GATAAGACAT CTCCATGAAT	7140
GATTCGTTCC ATTGTAATTT CCCTTTCAGT TCTACTTCTA GTCCGTGGTG ACTGTATGAA	7200
AAATCCCCAC GCAAAAATAC TTGCGTGAGG ACGAAATTCG CGGTGCCACC TCAATTATAG	7260
GATTTCCTCT ATCTCTCATT CCTGTCTCAG ATATCTCCTG TAACAGGCTG TCGGATAAAG	7320
GGCACTCCCT TGAGAATGAT GTTTTCTTCT CTCGTTTCAG ATGAACCCAA CTTTACAGCT	7380
TTCTCTGCTT GTTTTCAGCA ACCACAAGCT CTCTGTGAGA GAAAGAACTG TAATTTTTCC	7440
ATCTATTATT TTTTAGCTTC TAGTAGTCTG CAATCGCAGC TAGGTCCCTG CCTCCACGAC	7500
CAGAGACATT GATGAAGAGA TGTTCATCTC GGTACACCTT TATACTCTTC GAAAATCTCT	7560
TCAAACCGCG TCAACGTCGC CTTGCCGTAG GTATGGTTAC TGACTTCGTC AGTTCATCT	7620
GCAACCTCAA AACAGTGTIT TGAGCTGACT TCGTCAGTTC TATCCACAAC CTCAAAACAG	7680
TGTTTTGAGC TGACTTCGTC AGTTCTATCC ACAACCTCAA AACAGTGTIT TGAGCTGACT	7740
TCGTCACTTC TATCCACAAC CTCAAAACAG TGTTTTGAGC AGCCTGCGGC TAGTTTCCTA	7800
GTTCGCTCTT TGATTTTCAT TGAGTATTAC TAGCTTTTTT CGTATTAGTC CAGCCTTTTT	7860
GTTCGCTTTT AGTAGTAGGC ATGGAGCTGT AGATAGAACT CAAGTTCATC AAAGCGACTT	7920
AAGGCCCTAA TAAAAGATAA ACCAAACGAC GGATAGAAAA AAGCCACAC ACAGAATATA	7980
CTTCGGTGTG AGGGCGTTGG TAACGCGGTG CCACCTCAAT TATAAAGGGA CTATCCCTTT	8040
ACATCTCTGC CTTGTTTAAAC AACAAAGCTGC ACTGTAAGGT GTGCGCACCG AATTTTCATT	8100
GTTCCAAATT CATTTTCAAA ATCAGCCAC TTTCACTACT TCCAACCACC TATTACAAAT	8160
CACCACAGGC TCCCTGAAGA TCAAAAATAG TTACTTTTCT GATTTGTTGA ACTTATTTTA	8220
ATACTTTGTT TTTTCTTTGT CAAGACTTTT TTACGATTTT TTTGAAAATA TCATTGGAAT	8280
ATGACCATGT CTTCCTTAGA TCGAACATGA ACATGTCCCA CTTCTTAGAA ATTGGATCCA	8340

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ACTCAATAGA AACTGAATGG AGGCTAAACA GAACTTATTT TAGAACACTC CATCTTTTCC	8400
ACTAGGATTT TCAAGAATTA AACAATACTA GAAACTCTGT CTCCTAACAA ATTTAGGAGA	8460
AACTTCAACA GATGTGACAC TTTCCCTTTT AATAATTGCT AAAACACCTT CTATCATTTT	8520
TTTAGCCAAT TTAACATAAT TGGGAGCAAT TGTAGACAAA GCTGGAGTAT AATACTGAGA	8580
AATAGGAATA TTATCAAATC CAATGATAGA AATATCATCT GGAATAAGAA TTCCTTTCTC	8640
ATAGCACGCA CGAATCAAGC CCTGAACCTT TTCATCTCCT GAAACAAAAA TAATGTCCGG	8700
ATAATTTTGG GTAGTCAAGT GCTGCATTGC ATAAGAATAA ACTGAATCAA TTGTAGATAA	8760
GCCATAAATG ACTTTTAAAT CCATAAAGTA ATTTTATCA TTCAGAAAAG AACGCACACC	8820
TCTTTCACGA TCCTTATTAA CATGGGATTC TCCTCCCATTA AGCAACCACA TATTTTAAA	8880
TTTTTCTTCA GTTACAGCTT TCATCATATC ATAAGTAGCT TGAAAATTAT TATTAGATAC	8940
ATAGACTACT CCAGACGTTT GAGATTCACC GAAAACAAGA AAAGGCATAT GGTCTCTCTT	9000
TAAATACTGA ATTCTGATAT CATCTACACT TTCATAAAAA ACAATAACAC CATCTACTAG	9060
GCTACCTGTG CTTGATATAA TTGAATTACT AATTGTATCC TCCTCTCCAA AGTACTCAAC	9120
TATAGCATTA ACACCAAATT CTTTACACGT CCGTAACACT TTATCTAACA GCGTATGAAA	9180
CCAAATTAAA GGAAAAGAGT CGATTTTTTT TACAGAAATC AATATATTTA TAGCTTCTTT	9240
TTTAGTTAAA TTTTGTGCAT ACGCATTTGG AATATACGAC AATTCCTCTA TAACTTTTGG	9300
AATCGCTTGA TAAGTTTCTT CTTTAACATT TACTCCACCA TTAATAACTC GTGAAACTGT	9360
TTTTGGAGAA AAACCTGATA AACGTGCAAT ATCATAAATA GTTACCTTTT TCCCATTTAT	9420
ATTTTTCATT TCAGTCCCTC ATTACGAACA TTCTAATATT ACTATACAAT ATTTAATTTT	9480
TTTTAACAAG AGAATTTAGT AAATTATTTA AGATCCACAA ATTCACAAAA TTAATTTTAC	9540
AAATATTCTT CCCCTTCAA AAAGTTTAAA TTGCATTCA CACCTTTATT TTTAAGAATG	9600
TTTCCAACCT CACGACAAAT AAATTCATAT GAGAAAAAAC TGCCATAAAA TTGTAGATTA	9660
ACTTTTTTCTAG TAAATGTGT AGGATTTATA AAAACATATA ATAGCCTGTC AATGTAACAT	9720
TTTAACATAG AGTTAATTTT TTCTTTAAAG ATAACATTG TTATCAACTC ATCAGGAGGT	9780
AAATGAAAGG CAAACACCAT TTCACAAATA TCATAAAAAA AAATAAATTT GTATACTTGT	9840
ATCAAACAAT TATTATCAAA ATATTCTATT TTACCTAAAT CAAATTTGAT TTTATAATCT	9900
TTCATAAAAA CCTCTGAGCA AAAATCTACT CAAAAATTAG ATGATTAAAA CATCTAAAAA	9960
GCAAAAGGAC AAAAACATCT GTCCCTTTGT TTAATAAATT TCAGCTAATT TCTTCGACAT	10020
AAATAACACC TACAATATTA GCAATTTCTT CCATCAGTCG AAGATGTTCA AATCTACCTG	10080
ATAATTCCAG AGTAATAAAT GACGCTATTT TTTGTCCGG AACATCAAAG TATTCAATTC	10140

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TGTCAGAAAT AACATCTCCA AACGCTGTTC TTGAATCGGT CATTCTGATA CCATTTTCTG	10200
CACAATAAAC CAATACACGA TTATAGGCTT CTGTAGATTT AACCACTATA TACAATTCAA	10260
TCATTTTAGA ACGATTTTGC AGATATTTT TTAGTGGTTG GAACATGGAT ATCACACCCC	10320
AAACAGAAAT GGCTACTAAA AGAGCTCCCT CATAAGG	10357

(2) INFORMATION FOR SEQ ID NO: 192:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6867 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 192:

CGGGACATTC TCAATCTTCT GTCTTTTGTT TTTCTCTTCT TTCTATGATA CAATGGAAAA	60
AATAAATCA AAAGGAGTTT TTTTATGACT TATCCAAATC TCTTGGACCG CTTCCTAACC	120
TATGTTAAGG TCAACACGCG CTCTGATGAA CACTCTACTA CTACTCCAAG TACACAGAGT	180
CAGGTTGACT TCGCAACAAA TGTCCTAATT CCTGAAATGA AACGTGTTGG ACTGCAAAAT	240
GTTTACTATC TACCGAATGG TTTTGCTATT GGAACCTTGC CAGCCAACGA TCCGCTTTTA	300
ACACGTAAGA TTGGTTTTAT ATCGCACATG GATACTGCTG ATTTTAATGC TGAAGGAGTC	360
AATCCACAGG TAATTGAAAA CTACGATGGT GGTGTGATTG AACTAGGGAA TTCTGGTTTC	420
AAACTCGATC CAGCTGACTT CAAGAGTCTT GAAAAATATC CAGGACAAAC GCTCATCACA	480
ACAGATGGAA CAACCTTGCT AGGTGCTGAT GACAAGTCAG GAATTGCTGA AATTATGACA	540
GCCATTGAAT ATCTAACTGC TCATCCTGAA ATTAAGCACT GTGAGATTCG TGTTGGTTTT	600
GGTCCAGATG AAGAAATCGG TGTGGTGCC AATAAATTTG ATGCAGAAGA TTTTGATGTG	660
GATTTTGCCT ACACTGTTGA TGGTGGTCCA CTAGGTGAAC TTCAGTACGA GACTTTCTCA	720
GCCGCTGGTG CTGAATTGCA TTCCAAGGT CGTAATGTCC ACCCTGGTAC TGCCAAAGGG	780
CAGATGGTCA ATGCCCTTCA GCTAGCAATT GATTTTCATA ATCAACTTCC AGAAAATGAC	840
CGACCTGAGT TAACTGAAGG TTACCAAGGT TTTTACCATC TAATGGATGT GACAGGTAGT	900
GTGAGGAGG CGCGTGCAAG CTACATCATT CGTGATTTTG AAAAAGATGC CTTTGAAGCG	960
CGTAAAGCAT CCATGCAATC TATCGCTGAT AAGATGAATG AAGAACTTGG GAGCGACCGT	1020
GTCACCTCTCA ACTTGACAGA CCAGTACTAC AATATGAAAG AAGTCATTGA AAAAGATATG	1080
ACTCCAATTA CCATTGCTAA AGCCGTTATG GAAGATCTAG GTATCACGCC TATTATCGAA	1140

1158

CCAATCCGGG GTGGAACAGA CGGCTCTAAG ATTTCCCTTTA TGGGAATCCC AACTCCGAAT	1200
ATCTTTGCAG GTGGCGAAAA TATGCACGGA CGTTTTGAAT ACGTTAGCCT TCAGACTATG	1260
GAACGTGCAG TTGATACCAT CATTGGCATC GTAGCTTATA AAGGCTAAAA AGACGAGGTA	1320
GCTCAGCTAC TTCGCCTTTC TTTTATTCT ACTGGTTTTT CTGATTTCC AGTAGTTGTA	1380
GAAGATTCTG TTCTTTCATT TTCTGAAGTT GATTGAGCAG GTTTAGAATC TCTTGATTG	1440
CTTGGTTTGT TTTCTGCTGCT AGCAGTTTCA ATGTTAGATT CTGCAGTTGC GTTGGTTGG	1500
TTCTCAGCAC TGGTGTATC ACCATTGCT TCAGCATTTT TTGCTGGACT TGTTCTTCA	1560
CTTGCCTAG CTTTGACTG GATTTGATGA TTCAAACTA GAATAGCTTT TGTCGATTCA	1620
AGTAAAGCTG TTTTGTCTTT ACTCTTAGCA GAAAGTTGAT CTAATAATGC ATCCACCTTA	1680
TCAAAGTCCG CATCAGATCC ATTATTACTT TCTAATAAG AGTGAAGCGA CATGAGAATA	1740
TCGTAGAGTT TTTGATAGAG TACAAGTGC TGAGGATCTT GCTCAGCATT TTCTTTTCT	1800
TGTTGAAGGG CGCTAGCGAT ACGAGTCAAG ACATCTTTTA CCTGACTGTT TACTTCATCC	1860
AAGTCTGCAT CAGCCTTGT TGTGGCAGCT TTAGATTTT CTACTTCTTC TGCCAAGGAT	1920
TGCTGATTC CTCTTCATG GATTTGTTCC AAGAGTTGAT TTGCCTTGCT CAAAAGACTT	1980
TCTACTTCTT CCTTGCTATC TGTCGAGAT TATTGGTTGC TATCTACCAT GTACTCCTAA	2040
AACAGGAGAG TTATAATCCA AGATTACAAG GCCTTACAGA AATAAGAAAT CCAGATAAGA	2100
CAATGTTCTG CCAAGACGCT ATTCGCTTCG CACAGCAGCA CGGATTCAAT ATGCTTTAAT	2160
TTTAAAGTTT AGGTGTCAAG ACCTCTTTT AGTGTGCCA AAATTTAGAG AAGTAATCAA	2220
TCAACTAACT TTTATTTTT TCAAACCTTC AGTAACTGA CCTAAAGCTA ACTCAATCTG	2280
TCTTTGTAGA TGCTTCTGCT ATCAGCTAGA AGTTGATCTA CTTTGGCCAA GACTGCCTTC	2340
TCATCAAAAG TTCCAGGTG ATAGTTGGAT TGCAGGGATG GAATCTTGT TTTCAAAGCC	2400
GCTTCATATC CCTTAGTTG AACCTTGATG TAGTGATTGT GGTGCGCATG AGGAATCACA	2460
AAACCTTCTG AATCTTCACT TATAATTGTA TTGGCATCAA AACCATGACC ATCTTCTTCC	2520
TCATGATGGA CATGTAGTGA CGGATTACTT AATACAGAAC TAGAAGAACT TCCTACCTCT	2580
TCCGTGTTAG AGTGTGATGG GGGATTGTTA AGAGATGACT TAGGAATATA GTGATAGTGA	2640
TCCCCATGTC TTACTATATA AGCATCACCT GTATCTCTGA CAATATCATT AGGGTTAAAG	2700
ACATATGTGG CTGCTAATTC ACCTGCCGAC AAGTCACTCT CAGGAATGAA ATGATAGTGA	2760
CCACCATGTG GTACTATAGT AGATTGAAAT AGAATATGAG CAAATGATA AGGGGATTTT	2820
AAAGTAATTT CTAACAATGA TTTAGAACT ATGATGTGCT ATTCTAAAT CAACTCACTA	2880
TATATAACCA TCATCGGTAG TATAACGTCC CTGTAATTTT GCTACAGATA CTCTGCACT	2940

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AGCTCCTTTA TCGTCTTTAC CATGTTCTTG TTTTGGCGA TTGATTTTCAT CTTTGTTCG	3000
TACATTTTCT GCATGAGCTT GATCTTTAAG GTAAACATAA TACTTTCCAT CTACCTTAAT	3060
AATATATCCT CCCTTAACCT AACTGACGAT ATCTTGATCT TTCGGCTGAT AGTTGGGGGC	3120
TTTCATTAAT AGCTCTTCAC TAAAGAGCGC ATCAAAAGGA ACTTTACCAT TATAGTAGTG	3180
ATAATGATCG CCATGAGAAG TTACATAACC TTGATCTGTA ATCTTAATAA CAATTTGTTT	3240
TGCTTGAATT CCTTCTTTT GACTAACCTA GTCTGGAGTC AAATTTTCAG TCTTCTTAGT	3300
GTCTTTATTA CTGTTTACAT ATGAAACACG ATTTTATCT GTATTGGCCT GTTAGCTATG	3360
TTGGTTCAGA GCATAAACAC ACAGACTTAA GGAAAGGATA ACAACAGATC CAGCTGCTAT	3420
ATATTTCTTT TTAATTTCA TAATTACCTC ATTTCTATAA TTATTTATAT GATGTCTTCA	3480
TTATTAAATG ATTAAATAA TTAATTAACC AATTAATTAA CTAGTAAATA TTCCACCTCT	3540
TTTTAAGTTG TATGTCAAGA AATTTTATAT ATTAATAATA AAATGAAATT CTCCCAAAGT	3600
CAGAGTTTTA TTTCTAACTT TTGAGAGAAC TTCATTTTGT ATTCAGACTT TTTCTACTGC	3660
TATTCCTTAC GCTATGAGAT CAGATAAATT CTTTTTATC ACTTCTCCAC TTGGCAATCT	3720
TAATTCAATC GTTCCATCCA TATTGAATAT AACACTATCT AAGCCTAATC CGTAACTAGC	3780
TGTAATTTT TCTAATTTT CTGTACAGG ATCTACTGCT GGAGCTTCCT CTAATGCTGG	3840
ATCTAACATA GGGTCACTCC CCACATCCC TTCTGGATTC AACATTCCAT TATCCGTGA	3900
GTTTTCTGGT TTTACAGGTT TTTCGTTTGG TGCCCTGGT AAAGAATCTG CTGGTTTATT	3960
TTCTGTTGGT TGGTCTCAA CTGTCCAGT AGATACTTTT CCATTTTCAG ATGGTTTATT	4020
TTCAACATTT CCTTGAGGTG CTTCTCCTGT AAAATCTGCC ATATTCTTTT TAATGACTTC	4080
TCCCGATGGT AAATATAATT CAATTGTTCC GTCCATATTA AACAAGACAT TTTCTAGCTT	4140
CATCCATAA CTTTCAGCAA ATTTTGCTAC TTTTCTTGT ACAGGATCCA CTGTAGGAAC	4200
TTCTCTAAC GTTGAATTAC TAGTACTATT CCCAGTTTCA GAAAGTTTTT CTTTTCTAC	4260
CTTCTCACTA GTCTTGGTT CTTCTACCTT TTCATCAAGT TTTAAGTTTT CTGTGCTTT	4320
ATTCCTTTTA AATTGTGGTA GAATACTTG TTTATCAGTT TGATTTTCTT TTTCCAAGAT	4380
AGGTACTTCC ACAATATAAG TCGATTGATT GTCCAAATAA GCATTTGCCA TGAAGGTTAC	4440
AGGAATTTTA TTTCCGGCCG TTCTGGTTGT TCCTTGGTTT AATTTCGGAA TCGGTAATTT	4500
GATTTCAACA ACTTTATAGT TATTTCTAA ATAAGCATTT CCATGAAATT CATCAAACAC	4560
TCTGACTAAA GCATCAGTTC CTTTAGGCAC TGCAAATTGA GGGTTCCTC TTAATAAGT	4620
ATCCCCTGCA TGGAAAGGAT AGAAAATCGT TTGACTGGCC ATTTTGTAAG CTAAGAGGT	4680

1160

TGGAAC TGTA AATGTACCAT CATAACTTAC TTCTGGATAA TCTTTTGAAG CGATAGTATA	4740
CTTAAATGTT TGTCCCTGGTA AATAAGGTTG ATCTAATTCA AAGTTTGCAA TATTCCCTAC	4800
TCCTTCTCCA AATACTTTAC CAGATACTTT CTCCAATACT TTTCCATCTG GTGTTATTAA	4860
TTTACTAGC ATATTGATAC CTAATTTTTT CTCCAATTCA GGCGGAAAAC TAAAAGAAAC	4920
GCGTTTTTGA CCATTGGCTA GAGTAAAGTT TTGATTATTA AACGTACTAT TTTTAAACAA	4980
ATTAACAACA TTCGTTAATT CTCTCCAGT ATAAACTTTA TTCCCTTCTT TTTTAGCAAC	5040
TCCTTCTTCG GGTTTAAACA GTTCATAGTT ACTGTGAGAA TGACCAATTC CAACCGGTTT	5100
ATGTTATCA ATCGGATCTG CATGATGGTG ATCTCCATGC GGATAAATAA TCGCATTTTT	5160
TTCTTTATTC ACGACAATAC TTTCACGTTT GACACCATAT TGTTTCATAA TGCCAGCAAT	5220
TTTTTCTTCG ATTTTTTTAT CTAAATCTTT CATTTCTTTG GCATTACTTG GATAATCCTG	5280
TTTATGAGAT GACAAAGAAT CTAATCCATT ATGACTAGTT TTAACCTTCT CTAAATGTTT	5340
TTGCGCAsCT TAATTTGCTC TTCTGTCAAG TCCTTCTTGA AGAAATAATG ATTGTGGTCT	5400
CCGTGACTCA TGACAAAACC TGATTTCATCT TCAGCGATAA TACGATTAGC ATCAAATCCG	5460
TATCCATCTT CTTCATGTTT CTCATGTGAA GTTCCTGGAT TGATTGGAAG AGATGGAGAA	5520
GGTGTGCTA GACTATTGTT TGAAGAGTC GGTGCCCCA TTTGATTGTA TTTTGAATG	5580
TAATGGAAT GATCACCATG TCTTACAATA TAAGCTGTAG CCGTTTCTTC AACGATATCT	5640
TTTGGATTAA AAATATAACC ATCAGATGCT GAAGAGAGCT CCTTACTTGT CGTTAAAGAA	5700
GAAGGATTGC TTGAAAGACT GCCTAGACTA GACACTACTT CATTAGGTTT TGCATTGTGA	5760
GAAACTGTAG AACCAGTTCC ACTGATAGGC ACCATTCTGG CAATCTTTTC TTCTAAGGCA	5820
GAAAGCTTGC TGTAAGGAAT AAAGTGGTAA TGGTCGCCAT GCGGAATCGC AACTCCATTT	5880
GGGTACGAC TGATAATCTT AGCAGGGTCA AAGACCAGGC CATCTGATTG ACTGTAACGT	5940
TGGGCGCTAG GTGAATCATA GAGTTCCTTC AAAAGACTCT GGAGATTTTC AGATTTATTT	6000
GCTGGCTTGC TAGTTGATCC TTTTGCTACA GATTGCGTGT TATTGTCACT AGCTGTTGAA	6060
GAATAGCTTA ACTGACTCGG TTGCATATTT TTTCCAGCCA GATGTGCTTT AGCTGCTGCT	6120
AATTCAC TAG CAGATAAATC GCTTTTGGGA ATGTAGTGAT AGTGACCTCC ATGAGGAACG	6180
ATATAAGCAT TACCCGTATC TTCGATAATA TCAGCTGGAT TAAAGACATA ACCATCATTT	6240
GTCTATATC GTCCCTGAGA CCTTGCTACA GCAACATTAG AGTTAACCTT CTCATTATCT	6300
TTGACATGTT CTGTGTTTTG ACGATTGATT TCATCTTTAG TTCGAACATT ATCAGCATGA	6360
GCTGCATCTT TCAGGTAGAC ATAATATTTT CCATCGACCT TGATGATATA ACCACCTTG	6420
ACTTCATTGA CAATATCAGC GTCTTTAAGT TGATAGTTTG GATCCTTCAT CAAGAGTTCT	6480

1161

TCACTAAAGA GGGCATCATA AGGAACTTTC CCATTATAGT AATGATAGTG GTCACCGTGT	6540
GACGTTACAT AGCCCTGATC TGTAATTTTG ATTACAATTT GCTCAGCCTG AATTCCTTCT	6600
TTCTGGCTAA CCTGGTCTGG TGTCAGTTT TCACTTTTCT GACTTGACTG GCTGCCATCC	6660
ACATAAGAGA CACGATTATT GTCCTTATTT TCCTGCGAAC GATGCTGGTT TAGTGCATAG	6720
GCACATAGAC TCAAGGATAC GATAACAGCT GATCCAGCTG CTATATATTT TTTACTAAAT	6780
TTCATAAATC CCTCATTTCA ATAAATGATG AAGTTTTTTC TCAACTTCTT TTACTTTATT	6840
AAATAGTTTT CTAAACCCGG GGGTACC	6867

(2) INFORMATION FOR SEQ ID NO: 193:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 999 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 193:

CGTTCTAAAA ATGCAGTACG TTTGATTGAG AAATCAGTTA AAGGTATGCT TCCACACAAT	60
ACACTTGGAC GCGCTCAAGG TATGAAGTTG AAAGTATTTG TTGGAGCTGA GCACACTCAC	120
GCTGCACAAC AACCAGAAGT TCTTGACATT TCAGGACTTA TCTAAGGAAA GGAACAATA	180
AGTATGTCAC AAGCACAATA TGCAGGTACT GGACGTCGTA AAAACGCTGT TGCACGCGTT	240
GCGCTTGTTT CAGGAACTGG TAAATCACT GTTAACAAAA AAGATGTTGA AGAGTACATC	300
CCACACGCTG ACCTTCGTCT TGTCAACAAC CAACCATTCG CAGTTACTTC AACTGTAGGT	360
TCATACGACG TTTTCGTTAA CGTTATAGGT GGTGGATACG CTGGTCAATC AGGAGCTATC	420
CGTCACGGTA TCGCTCGTGC CCTTCTTCAA GTAGACCCAG ACTCCGCGA TTCATTGAAA	480
CGCGCAGGAC TTCTTACACG TGA CTCACGT AAAGTTGAAC GTAAGAAACC AGGTCTTAAG	540
AAAGCTCGTA AAGCATCACA ATTTAGTAAA CGTTAATTCG AAAGAATTAC TATACTTATA	600
CAGAGCACCT TTCGGGGTGT TCTTTTTTTA TACTTTCTTA CTAAATTGGT GCAATTGACA	660
CAGTTGTTGC GACTTTAGTC GCTTACAAAT GTGGCTGCAA CCTGACATGG TCAGTTGCCT	720
CAAAACGTTA ATCAATACGA TTATATCAAC GTTTCAAAGC ACTCAAGGGT TTACCCTATG	780
GGTGCTTTTT TCTATACTTT CTAAAAAGT TTACCCTAAA ATTTGCCCTA AAATPACCCT	840
ACTTATTTTT AAGATGTTGG TAGGCAACTT GTCCAGCAGA TAATGGAACT ATGTTTGAAG	900
TATTAACATA AGTCTTAGTT GTAACGGTAT CGCTATGAGT TAATGCTTCA GAAATGGCTT	960

CTAAGCTCAT TCCTGCTTTT TTAGCAAGTG TCGCTCCTG 1162 999

(2) INFORMATION FOR SEQ ID NO: 194:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2315 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 194:

AATATTATCA CTGTTCTTGA AGGCAGAACA CAAGCTGTCA TCCGAAATCA CTTTCTTCGC	60
TACGATAGAG CCGTTCGTTG TCAAGTGAAA ATCATTACGA TGGATATGTT TAGTCCTTAC	120
TATGACTTGG CTAAACAGCT TTTTCCGTGT GCTAAAATCG TTCTAGATCG TTCCCATATT	180
ATCCAACATC TCAGCCGTGC CATGAGTCGT TTTCTGTGTT AAATTATGAA TCAGTTTGAA	240
CGAAAATCTC ATGAATACAA GGCTATCAAG CGTTACTGGA AACTCATCCA ACAGGATAGT	300
CGTAAACTCA GCGATAAACG TTTTATTCGC CCTACTTTTC GCATGCACTT AACAAATAAA	360
GAAATCTCTG ACAAGATTTT AAGCTATTCA GAAGACTTGA AACACCACTA TCAGATCTAT	420
CAACTCTTAC TTTTTCACCT TCAGAACAAA GACCCTGAGA AATTTTTTCGG ACTCATTGAG	480
GACAATCTGA AGCAGGTTCA TCCTCTTTTT CAGACTGTCT TTAACACCTT TCTAAAGAAC	540
AAAGAGAAAA TCGTCAACGC CCTTCAACTA CCCTATTCAA ACGCCAAATT GGAAGCGACC	600
AATAATCTCA TCAAACTTAT CAAACGCAAT GCCTTTGGTT TTCGAAACTT TGAAAACCTC	660
AAAAACGGA TTTTATTCGC TCTGAACATC AAAAAAGAAA GGACGAAATT TGTCTTTTCT	720
CAAGCTTAGC TTTTCTTCAA CCCACTACAG TTGACAAAGA GCCTATTTTC GCTGATTCTC	780
CACTACATTT GACTGGATTC TAATTTTTTA GAGAAATACA AAAGAGCTAG CTTTAGCTAG	840
CTCTTTTCCT ATGCGGAGAG AGGGACTTGA ACCCTCACGA CCTAAAGCGG TCACAGGATC	900
CTTAGTCCTG CGCGTCTGCC AATTCGCGCA TCCCGCGGTC GATTACTTTA CTAGTATATC	960
AACTTTTGGG ATGCTTGTC ACACTTTTTT TCAAATTTTT TCATTTTCAC CAACCAGGTT	1020
ACTCAAAAAG TTCATTTAGA TTTTCATCTA CTAAGTTAGC TCCGAGTGTA TTTTGGAAAT	1080
GACCTAGGGC AAATTGATGA TTTTCAGGCC AGATGGAAGC AACAGCTGGT TTAACAATCT	1140
CGATGTCATA TCCTAGATTA TAGGCATCTA TAGCTGTATG TAGGACACAG ATATCCGTCA	1200
AGACACCTGT TAAGATAACG GTAGACACTC TACGCTCTCT CAAACGAATA TCTAGGTCAG	1260
TCCCTGAAAA AGCTGAGTAA TGGCGTTTAT CCATCCAAA GACACGACTG TCTGAACCAT	1320
GCTCTTGATA AAAGATCCCC AAATCTCCAT ATAAATTCCG TCCACTCGTC CCAATCAGAT	1380

1163

TATGAGGAGG AAATAACTTA CTTTCCGGAT GGAAACAATC GTTTTCTTCA TGAGCATCAA 1440
TAGTAAAGAA GATATAATCT CCTCGTTCAA AAGCTAATCG AGTTACCTTG CTGATGGCAT 1500
CCGAAATCGC CTGAGCTGGA GCACCTGCTG TTAGTTTCCC ACTATCAGCA ACAAATCTT 1560
CTGTATAATC AATCGAAATT AAAGCCTTTG TCATTAGTAA TCTCTTTTCT TCACTTCTTC 1620
AAAAATATCT GAAATCAAGA CCTTAAGATA GGTTCCTTTC ATTCCAAGTG AGCGACTTTC 1680
AATAATCCCC GCAGACTCAA GTTTACGAAG AGCATTGACA ATCACAGAGC GAGTGATTCC 1740
GATACGATCT GCAATCACTG ACGCAGTCAA CTTCCCTTCA TTTCCATTTA ATTCCCCTAA 1800
AATTGCTGAA ACAGCACGGA GTTCGAGTA AGAAAGGTA TTGACCGCCA TGGTGACAGC 1860
AGTACGACGA CGAATATTTT TCTCATCTTC TTCACGTTGG AAGTTAAGAA GCTGAATCCC 1920
AACAACGGTA CTGGCAATCT CAACAAGAAC CAAGTCCTCA TCTTCGAATT TTTTATCATT 1980
ACGCCAAATA ATCAAAGAAC CAAGGCGAAT CCCCAGTACA TGAATCGGTG CAATAGTCGT 2040
CAAGCCATCT GGAAATCAT CTCTACTCTC AATAGGGAAA ATACTCATAT CATGCTCAAC 2100
AGGCAAGTTT GCTTCTGTTT CGTAAATCAT ATTAGCCCTT TGAACGTAGT CATCTGGGAA 2160
AATCTTAGTT TGGAAGAATT GCTTACGCGA TCTGTATTG TTTTATAACG CATAAAATAG 2220
CCAAGCAGAC GTCCCTTACT ATTGATAATG CAGGCATTGC AATGAATAAT ATCCGCTAAC 2280
TGACGCGTAA TAGCGTTGTA AGGGAGCTCA TCTCG 2315

(2) INFORMATION FOR SEQ ID NO: 195:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6693 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 195:

CGATTTCTTC CATTTCTTCA AATAAGAATA CTTATCTGA CATATGTGTT ACCTTCTTCA 60
TCAAAAATTA TTTTGTATC GATTACATTG CAGATCGTAA CATAAAGAAA AACAGATGTC 120
AAATATTAAG CGTAAAAACA TGGTCACTAA AGAACTATAA GAGAAAAGGT AAACCTAGCG 180
ACGCGATGAA CGCTGGGTCG TTTGGTTTCG ATTGCTCTCT TCCTCTTGTT TTTTCTGTTT 240
TTCTTCTTGT TTTTCTCAG CTTCTTGGC CTCTTGTGTT GCTTTTTCCT CAGCTTCCAT 300
AATTAATTTA TCCGCCACAG TGTAGCTGTA GATTCCAGCT TCCATGTCGA CCACACTCGG 360
TTCTGACAAT TGAGGCTTAA TCTTACTGTA ATATGGCAGT TTCTTACTCA TTTCAGATAG 420

1164

AGGAACCAAG ACTTCGTCCG AATCATTTCAT GGTCAATCGA ATTAAATCGG ATGTCACCTT	480
GCTTGGGGCT AATTCCACCT TTTGGATAGC CGCCTTGAGT TCTGGGCTAA TTTGAGCAAG	540
TTCTGAGACA AAAACTTTGA TTTGTTCACT ATCATTAAAG AGAACTGATA AATAAGTTTC	600
TGGTAAACTG TTCAGACTCA CAGAACTAGT CTCAAGCTGA CCACTGGAAA GAATAGGATA	660
ATGATTTTCA CCAGAAATAT AGTAGGCCAC AATATCATAT TCCTTGACCT TAATAGTGAA	720
CTTAGTTGGA AATTGATAGA CAAGTTGAGC TGATTCAACC CAATAGTTAG ACTTAATCTG	780
CTTTTCATAT TTTGCCCTGT CTAGCAGAAG GTTAATCGTA TAATCCGAAT CCTGAATGCC	840
TGAAGCCTGT CGAATATCAT CAGCTGTAGT TTGCACCGTT CCCTCAACAC GAATATCTTT	900
CATGGTCGCA TAAGGACTGA GCAAGTAGGC AGAGACAAAC AATAGAAGCA GACTTGGAAA	960
TAAATCGTG AAGGCTCGCA AGATATGGAT ACCAGGAATC TTTGCTTTGG CTGGTTTTTC	1020
CTTTGTAGCC TTTTGTAGCA GCTTTTATC CTGTTCTCCTC TTCTCTTTAG ACTCTGGTTC	1080
TTCTTTCTCT TCTTTCTCTT TGTGAGCCTC TGAGGATGCT ACTTTTCTCT CAGACTCTTC	1140
CTTAGCTGAT TCTGAATCTT CCTGGTCTGT TTTACTCTCC TGGTCTCTGT TATCCTCTGA	1200
CTTCTCAGAT TCTTCTCCCA TTCGAGCTTG TCTTCTCTTT TCCTTCTCCT CAGCTAGAGC	1260
CGCCTCTTCT TCAGCCTTCT TTTTGTAGATA TTCTTGTTTT CGTTTCTGCC ATTCTGATAA	1320
CTCTTTCAAT TCTTCGAGGG TTTCTTTGTC CTCATTTTTC TTATCTTTTG ACATTTACTT	1380
TCTTTATGAT AAATCTTTTT TCAACAATTG ATAAAAATCT GCTAGAGATT TCAATTCCTT	1440
AGAAGCTTTC ATCTTAGCTT GGTAACTTTC CTTGTGACTT AGTAAGTGAG AAAGCTTCTC	1500
TTCCAAACTA TCCAAGGTCA AATCGCTTTC TTGAAGGTCT TCTGCATAGC CTTTCTTAAC	1560
AAAGTAAGCT GCATTTTCAA TCTGGTCACC ACGACTAGCT TCACGACCAA GCGGCACAAT	1620
GACATGCAAT TTTGCTATCG CCAAGAGCTC AAAAATCGTA TTGGCACCAC CTCGTGTAC	1680
AACAATATCA GCCAATTCCA TCAAGGGTTG ATAGAGATCG GTCACATAGT CAACACGAAA	1740
AAGATTTTGC CTCAACTCAT TCAGACTAGA ATCTCCAGTT AGATTGATAA TATTGTAGCG	1800
CTCTGTTAGT TCTTTCTTAT GGTCTGTAC CAATTGGTTA AAGACACGAG CGCCTGCAGA	1860
ACCGCCAACA AACAATACAG TTGGCAATTT GGGATTAAAG TGGGTTTGAA TATCCACCAA	1920
TTCATCTGGT TCTGGAGTGT TTTGTCCGA AACCTTGGTC ACCGCTCCCA CATGCTCAAC	1980
CTTAGCCAAA CTCGAAGCTT GTTCAAAGGT TGAATACATC TTAGTCGCAA ATTTATAGGC	2040
GATTTTATTG GCCAAGCCCA TAGACAGGTC AGATTCGTGA ATAAAGACAG GCACTCCTGA	2100
CACACGCGCA GCGATAACAG GCGGTACTGA GACAAAGCCC CCCTTTGAAA AAAGGGTCTG	2160
TGGACGCAGT CGCAACATGA TAAAGAGCGA TTGGACAATT CCCCACCAA CTTTGAAGAC	2220

1165

GTCCAGCATA TTTTGCCAAG AGAAATAGCG ACGCAATTTT CCAGTCGCAA TAGAATGGAA	2280
GGTGACATCC AAACCTGACT TAAGGATTTT TTGGTGTTTC ATACCACACT TGTCCTCCGAT	2340
ATAGTGGACT TCCCAACCAT CTTGATGAA CTTGGGCATT AACAAAAGAT TGAGGGTAAC	2400
GTGTCCAACC GTCCCCCAC CTGTAAAGAC AATTTTTC ATATTATTCT TTAACTCCG	2460
CTACTGTGTC GATAAAGAGG TCGCCACGTA CTTCAAAGTT AGCATACATA TCCCAGCTAG	2520
CATTGGCAGG ACTAAGAAGA ACCACATCTC CTTGAGTCGC AAGCTCATAG GCCTTGCGGG	2580
TCGCATCTGC AATATCTGTC GCCTCCACAT AAGCGACACC AGCCTTGTCT GCTGCCGTT	2640
TGACACGTTT TGACAGTTGA CCCAGGATGA CCATCTTCTT GAGTCCAGTA ATGTCTGGCA	2700
CCAATTCGTC AAACCTCATTG CCACGGTCCA AACCACCTGC AATCAAGACG ACCTTGCTGT	2760
TGTCAAATCC TGACAAGGCT TTTTGAGTAG CCAAGATATT AGTTGATTTA CTGTCGTTAT	2820
AGAATTTAAC ACCCTTGATG TCATCCACAA ACTGGAGACG GTGTTTGACA CCACCGAAGG	2880
CTGAAAGAGT TTCCTTGATG GTTTGATTGT CCACATCAGC AAGCTTGGCT ACAGCAATAG	2940
TCGCAAGGGC ATTTTCCACA TTGTGGCTAC CTGGAACACC GATTTCATTG GCTGCCATGA	3000
CTACTTCACC ACGGAAGTAG AGTTGACCAT CTTCCAGATA AGCTCCATCA ACCTTTTCAA	3060
GTGTTGAAAA TGGTACAACA GTGGCTTCTG TCTTGAAGT CAAGTCTTTT GCCAAGTCTT	3120
GATTAAAGTT CAAGACAAGG AAATCAGCTG CTGTCATCTT GTTCTGGATA TTCCACTTGG	3180
CTGCTACATA TTCCGAAAAT GACCCATGGT AGTCGATATG AGTTGGCATG AGGTTGGTAA	3240
TAACCGCAAT CTCTGGATGG AATTCTTGAA CACCCATGAG TTGGAAGAA GAAAGTTCCA	3300
TAACAAGCGT GTCCTTATCT GATGCTATTT GAGCAACCTG ACTAGCTGGA TAGCCGATAT	3360
TCCCTGATAA AAGACCATGT TGGCCAGCAG CAGTCAAAC TTCCCCAATC ATAGTCGTTG	3420
TGGTTGTCTT ACCGTTTCGAT CCTGTGATAC CAATAATCGG TGCTTCTGAA ATCAAATAAG	3480
CCAATTCAC CTGAGTCAAG ACTGGAATTC CCTTGGCCAA AGCCTTTTCA ATCATGGGAT	3540
TGTTGTAGGG GATACCTGGA TTTTTCACCA TAAGGGCAAA CTCTTCATCC AAGAGTTCCA	3600
AAGGATGGCC ACCTGTAATG ACCTTGATCC CTTCTTCCAG CAAACTTTGG GCAGCTGGAT	3660
TGTCTCGAA AGGTTTCCCA TCATTTACTG TCACAATGGC ACCTAGCTTG TCCAACAAAC	3720
GAGCTGCAGA TTCACCAGAC TTGGCCAAAC CTAAACAAG GACTTTCTTA TTTTAAATT	3780
GATCTATTAC TTTCATGTCT CGAACTCCAT TTCTACTCCT ACTATTTTAC CATTTTATG	3840
GAAATAAAAA AGCCACAAAG TGTGTTGTG ACTCTTCTT CTAAGTGAAT CTTACCATAT	3900
CATCTATGTG ATAAATCGGT AACTCGAATG ACCTGATCCA CTGCTCCCA AATCAGAGGA	3960

1166

TTATGGGTCG CAATAATAAT GGTCCGATTC GGATTTTSTA AAGATTCTAG GATGGAAAGT	4020
AATTCCTCAG AGTTTTTGGG GTCTAAGGAA GCGGTTGGTT CATCTGCGAG GATCAAAGGT	4080
GGATCCTTTA AAATTATCTT CGCTAGTGCA ACACGTTGTG CTTCTCCTCC TGATAACTCA	4140
AATATAGGTT GCTTCAAATC CAAATAAGAG AGGTTTACAC GGTTTAGAGC TTGTTTCATC	4200
AAAGAGATTT TCTCTTTTTC CTTCAACTTT TTACCAACTA AACCAGATT GAGATTCTCT	4260
TTGACGGTTT GGCTTTCAAT TAAGCCAAA TCTTGAAATA AGTATCCTAA GTAATCTCTA	4320
AAGAAAACAG AAGGCTTGAT GTCCTTAAGA GAAGTGCCAT CATAGATGAT TTGCCCTTTG	4380
TCATATGGCT CCAATCGTCC AATCATATTC AAGAGTGTG TCTTACCACA GCCACTTGTA	4440
CCGATTAAAG CATAAATTTT CCCACCTTCA AAATGAAGAT TCATATCTGA AAATAGCTGA	4500
CGGCTTCCAA ATTTTTTAGA TATATTCTTT AGTTCAATCA TCCTATTTTC CTTTCATAAT	4560
TGTCATAGAA ACACGAGATT CTTTCTGCGC TTGACGGTAA AGCGTCAAAA CTGCACTAGC	4620
TAGAAAGACC AATAAAGTGA GCAAGCCAAT CACCAAGTCT CGACTGCTTA AATAAAGAG	4680
ACTAGCACCA AATACAAAAC TAGCAAATTG GCTAACCATA TACTGAGCAT GTGTTTCAAA	4740
AAATCGTAAA CCTGAAATTC GTTTAATCAA GATATCTCGG CGGAATTGCT CGAAATATAG	4800
AAGATTGACA GAATAAAGA GTAACAAGGA ACTGGCTATT CCAACAATAG CTCCTAAGAT	4860
TAAAGTTGCT GTTTCAGTTT GAACTTCATT ATAACGAGTT AGATAAACAC TTCTTCCTTC	4920
TTTAAGATAG GATACTTGCT CATAAATTC AGCTTTCTTC AAGAGTTCTA GCCCACTCTC	4980
ATATCCTTTG ATAAAGAGTT GTTTTCAGC ATTGATAGAC CAACTAGATA AGGATATAAA	5040
ACTATCACCT GTAGAAGTCG GCGTGAATAC CACTAAAATC GGATCAGTCA AATACTGAGT	5100
AGATACGGGA TTCTACCGT TATTATAAAC AAACCGCTTT TCTCCATTG AAAGATAACT	5160
AACGTGCGCT TTCATCTCAT AATCCAAAGG AGCACTTGCC TCCTACCCAG ATTTTCATA	5220
ATAACTCAAT CTTCTTCAA AACTTTCTT AAGTTCTGCT TCTCGAGAGC GCAAATGTTT	5280
TGGGAGCAAG AGGATAAACT CACCTTTTGG GAGATGGGCT AACTTCTGTT TGGTCTCAGC	5340
ATCTACCACG ACCTTTTCCT TGTCCAAATA ACTGGGACTA ACATAGAGCG TATTAGCATC	5400
TGAACTATAG GTATCCAGTG TCTCTCCCTG TTCATTTTTT CCTGTGGAT TGGCAAAATG	5460
GAGCAGATTA TCCTTTACAT AAAGAGCTTG TTCTTCTTCG ATTGCTTCCT TGGCAAAGGC	5520
ATACCACCTG CTCTGATTTT CTGTATCTTT TCCTCTATCA CCTAAGCCAA AGGAAATCTG	5580
GTAATAGTCT GCTCTGTCCT GCCATGCTTG TTTTGAAAT TCAAGTTCTT TCAATCGTTG	5640
GTAAGACGTC AAACCTGTCT TAACAGCGTA GCCTACTGTA AAAACAGCTA CTAACGTACA	5700
CAATAGGGTT AAAGCCATCA AGCGTTTAAG GGGTAATCTT CCCTTAATAA CGGGAACATA	5760

1167

TGCTTTGTAA CTCAACTCA TTAGGTAAAG GAGCATTAGT AAAATTGAAA TCGCCAATAA 5820
AAACAACAGA TAGAACTAA TCCCAAAACC ATAGGTGGCT AACAGATAG GATAAACAA 5880
ACCTTGACTA AAAAGAACGA CTCCCCCACC TAGGAAGGAA AGGAGGGCTG ATAGAAGGAG 5940
CCATTTGATA TCAGTAGATA AAGAATGCCC CATGATGGAT AAGAGAGTCT GACCAGAAAA 6000
GAGTTTATA CCTGCTGCTC TCATTTCCTT AATCCGAGTG ATAATCACTA AAGCAAAGAA 6060
AGATAAGCCA AATATTGCTA AACTAATTAA AATAAGGGA TTTAGTAATA TTCGAAAAGC 6120
AAGAAAATAG GCGGTATCT TTCGGTCAGC ACTTGCTTTA TAACCCAAAT CTCCTAATTT 6180
ATCGGCAAGC TTTTCTTTCG TCAAGGAGCC TGACAAAAGG AGATAACTAT TTAGCGGAnT 6240
AtACGTTTAC GACTTCTTG GCTAGCTTCT TGGAATTCTT TTGGTAAAGT TCCCTGACCA 6300
TAAGTTGCAT AAGTAAAGTG AGTCGTCCCA TCCTTACTCG GCTCTACAAT TCTTCTAGCT 6360
ATTAAACTCT GTTCTGAGTT TGCAAAATTC TCCAATTCTT GTTCAAATAC CTCACGCGTC 6420
GGTTCCTGAG TATCTTTTTT GACACGAAGT AAAGAAACGG AATCATAGCT TGCATATAAA 6480
TATTGTGGCG CACGTAAGAC AATAATCCAA GCAAGGAAGA AGCTGAGAAA AAAAGTTGAT 6540
AATAATATGA ATAGTTTCTT CATAGTAGAC TCCTTGTAAG CAAAATTCCC CCTGTAATTT 6600
CTTACAAGGG GAACGATTTA AATCAATGAA CGATTAGTCA TAATCACAGT AAAATGCTAC 6660
TTGTTCTCCC CATTTAGTCC AAATCCATGC AGG 6693

(2) INFORMATION FOR SEQ ID NO: 196:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1847 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 196:

CCGGTCTATG TACCACTAC TTTGGGACAA TATGGGGATC AGCTACCCAA AACTAATCGA 60
GCGTTTGGTT GACCTTGCCA AGGAAAGTTT TGACAAGCGC GACGATTTGA TATAAATGA 120
AAGAGAGGGT AGAAGCCAGA ACCATCACTG CACGGTGACT AGAGTTCTCG GACTTCAGCC 180
CTTTTAAAG GAGTAGAAAT GAAATTAACA ATCCATGAAA TTGCCCAAGT TGTGGAGGCC 240
AAAAATGATA TCAGTATCTT TGAGGACACC CAGTTAGAAA AAGCTGAGTT TGATAGTCGT 300
TTGATTGGAA CTGGAGATTT ATTTGTGCCA CTTAAAGGTG CGCGTGATGG CCATGACTTT 360
ATTGAAACAG CCTTTGAAAA TGGTGCAGCA GTAACCTTGT CTGAGAAAGA GGTCTCAAAT 420

1168

CATCCTTACA TTCTAGTAGA TGATGTTTG ACAGCCTTTC AATCCTTAGC ATCCTACTAT	480
CTTGAAAAAA CGACTGTTGA TGTCTTTGCT GTTACAGGTT CAAATGGCAA GACAACGACT	540
AAGGATATGT TGGCGCATTT ACTGTCAACA AGATAACAAG CCTACAAAAC ACAAGGCAAT	600
TACAATAATG AGATTGGCCT TCCTTACACA GTTCTTCATA TGCCTGAAGG AACAGAAAAG	660
TTGGTTTTGG AGATGGGACA GGATCACTTG GCGCATATTC ATCTCTTGTC TGAATTGGCT	720
CGTCCAAAAA CAGCCATCGT GACCTTGGTT GGAGAAGCCC ATTTGGCCTT TTTCAAAGAC	780
CGTTCAGAGA TTGCTAAGGG AAAAATGCAA ATGTCAGACG GAATGGCTTC AGGTTCCCTG	840
CTTTTAGCGC CGGCTGACCC TATCGTAGAG GACTATTTGC CAACTGATAA AAAGGTGGTT	900
CGTTTGGGC AAGGGGCAGA GCTGGAAATT ACTGACTTGG TTGAGCGCAA AGATAGTCTG	960
ACCTTCAAGG CCAATTCTT AGAGCAAGCC CTTGATTTGC CAGTAACTGG CAAGTACAAT	1020
GCGACAAATG CTATGATTGC ATCCTATGTT GCCTTGCAAG AAGGAGTTTC AGAGGAGCAA	1080
ATTCGTTTGG CCTTCCAAGA TCTTGAATTG ACGCGTAACC GTACCGAGTG GAAGAAAGCA	1140
GCCAATGGAG CAGATATCCT GTCAGATGTT TACAATGCCA ATCCAAGTGC TATGAACTG	1200
ATTTTAGAGA CTTTCTCTGC CATTCCAGCC AATGAAGGTG GCAAGAAAAT TGCAGTGTG	1260
GCGGATATGA AGGAGCTTGG TGACCACTCT GTTCAACTTC ATAATCAGAT GATTTTGAGC	1320
CTTCTCCAG ATGTGCTTGA TACCGTGATT TTCTATGGAG AAAATATTGC TGAATTAGCC	1380
CAATTGGCCA GTCAAATGTT CCCAATCGGC CACGTTTACT ACTTCAAGAA AACAGAAGAC	1440
CAGGATCAAT TTGAAGACCT AGTCAAGCAG GTCAAGGAAA GCCTTGGAGC CCATGACCAA	1500
ATCCTGCTCA AAGGCTCTAA CTCTATGAAT CTAGCCAAGT TGGTAGAAAG TTTAGAAAAT	1560
GAAGACAAGT GATTTTGTC AGTATTGCA AAGAATGATT GCCATTACAG ATACTGGCTT	1620
AACCTTTACA AAAGATCCGT TTGACCGTGA GCGCTACGAA GACTTGCGAA GTCTGTTATC	1680
TGAAATGTTG AATCAAGCAT CAGACCTTGA TTCCGAAGAA GTGGCAGAAG TCTTGAAGCC	1740
AACTTCTGCT TATGCGACTC CGTTAATGGA CGTCCGTGCT TGGATTGTTG AGGATGAGAA	1800
GATTTGTCTG GTTAGGGGAC AAGGAGAGGA TAGTTGGGCT TTGCCGG	1847

(2) INFORMATION FOR SEQ ID NO: 197:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1062 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 197:

1169

CAAGCGAAAA CATTTTTTAT TCCAAATAAA CAGAGCATT TAGGAGAACA AGAGATTTTG	60
AATGCCAAGT CGATCTTGGC CTTGCTAGAC GGTTTGGAGT CACATAGCTA TGATGTAGTC	120
TATCTCCGTC AGCCTCTTAA TCGTCTCGAA TATATCGAGT GTGCGATAGT GGGGCAATCA	180
CAATTTCTCT TTAAGGTCAG TTATGCTGAT GGTCAAAAGG CTTACCGTGT CGATCTTCCT	240
GACCTACTAA CAAAGACAGA CTGGCAGATT ATCAAGTCAT TTTTAGATGC TTTGCTTGCT	300
TATACAGGGA CTGATATTGA AGGGCTAGAT GGTTTTGATT TTGAAGCTTA TTTCCAAGCA	360
AGTATTCAAG CCTATCTAGC AGACCCTGTA GCTCGTTTGA CGATTTGCCA AGGAATTTTT	420
AATCCTATTT TCTTTAGTCG TGAGAACTTG AAAAGCTTTT TAGAGGCAGA TGGCTTGGCT	480
CAGTTTGAAG CGCGTGTGCG TGCGGTTCAA GAGACAGATG CCTACTTTGC GAGAGTTTCC	540
TTCTATCAGG ATGGAGAAGG AAAAGTGCAT GGCCTTTACC ATCTAGCTCA AGGAGTCAAG	600
ACAGTTTTCG CGAGAGAACC GTTTGTTTCCT GCAGCCTATA TTGAGCAATT GGTGGATAAG	660
GAAGTCCAGT GGGAGATTGA CTTGGTTCAA ATCACAGGAG ATGGCTCTAA ACCAGAAGAC	720
TATGAAGCCA TTGCTCGCTT GGACTATGCA AAATCTTAG AGGTATTACC CCCATCTTTT	780
TACCACCAAC TAGACGCCAA TCAAATAGAA GTGCAACCCA TATTAGACAA AGATTTTAAA	840
ACATTAGCAC AAGAAAAGTA AAGCAGAAGC AGGTCAATCG ACTTGCTTTT TTGACATAGA	900
AAAAATCCTG CCAAGATGAC AGGATTGCTA CTCAATGAAA ATCAAAGAGC AAAC TAGGAA	960
GCTAGCCGCA GCTGTACTTG AGTACGGTAA GGCGAAGCTG ACGTGGTTTG AATTGATT	1020
TTGAAGAGTA TGAAGTTTAA AGAAAAGCCA AGATACGAAG AT	1062

(2) INFORMATION FOR SEQ ID NO: 198:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6846 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 198:

TATCTACAAC CTCAAAAACA TGTTTGTGawG gCTCGTCAGT cTATCTACAA CCTCAAAAAC	60
ATGTTTTgAa kGcTcGTcAG tTCTATCTAC AACCTCAAAA ACATGTTTTG AcaGcCtCgT	120
CAGTTCTATC TACAACCTCA AAAACATGTT TTGAGCTGAC TTCGTTAGTT TCATCTACAA	180
CCTCAAAAAC ATGTTTTGAG CTGACTTCGT TAGTTTCATC TACAACCTCA AAAACATGTT	240
TTGangnCnT CGTCAGTTCT ATCTGCAACC TCAAAGCAGT GCTTTgagcG CTTCTGTCAGT	300

1170

TCTATCTACA ACCTCAAAC AGTGTGTTGC GCAGCCTTTA ATCAGCCGCC TAGTCCGCTC	360
TATGGTATTC ATTAAGTCAA CATCTCTTGT TTAAGAGCAC CAAATCAGGA AATCTTCTCG	420
ATTCCTGAT TTTTCTATT TACGTTTTCG TGTGAGCTA CGTCTGTCA AACCATGAGG	480
TAAGAGAACT TCACGTTCTT CCAACTCTTC CTTATGCATA ATCTTGGTCA ACATACGCAT	540
ACTAATGGCA CCAAGGTCAT AAAGAGGTTG GGCAATCGTT GTCAAGTTTG GACGGGTAAA	600
GCGTGAGATT TGTGAATCAT CACTAGTAAT AATTTCAAAA TCTTCTGGCA CAGAAACACC	660
CTTATCAGCC AAACCGTTCA AGACTCCTGC TGCCAACTCA TCACCTGTCA CAACTGCTGC	720
AGTTGCATTT GATGAAATCA AACGCTCTGC TAAGGCGTAA CCATCATCAT AGCTATATTT	780
AGATTCAAAT ACCAAACCCT CACTATAAGT GATTCCTGCT TTTTCAAGG TTTCCTTGTA	840
GCCAACTAAA CGAACCTTAC CATTGATGTC ATCCACTAGC GGACCGCTAA CGAAAGCAAT	900
ACGCTCATTT TCTTTAGCAA GGTAATCAC TGCATCAATT GTTGCTTGCT TATAGTCAAT	960
ATTGACACTT GGCAACTGGT GCTCAACATC GACAGTTCCT GCGAGAACAA TCGGAGTACG	1020
TGAACGCGAA AATTCTGAGC GAATTTTATC TGTCAAGTGA TACCCCATAT AGATAATGCC	1080
ATCTACCTGC TTTGAAAAGA GGGTATTGAC AACAGAACT TCTTTCTCGT TATCTTCATC	1140
GCTATTAGCT AGGACAATAT TGTACTTGTA CATTTCTGCA ATATCATCAA TCCCCTTAGC	1200
CAAACTCGAA AAATAACCAT TGGTAATATT TGGAAATCAG ACACCGACAG TGGTTGTCTT	1260
TTTACTTGCA AGACCAACCG CAACTGCATT TGGACGATAA TCCAAACGAT CAATTACCTC	1320
TAGCACTTTT TTACGGGTAT TCTCTTTTAC ATTTTATTG CCATTGACCA CACGGCTGAC	1380
CGTCGCCATG GAAACACCTG CTTACGAGC GACATCATAA ATGGTTACTG TATCATCTGC	1440
ATTCATTCTT TTTCTGTCC TTTCTATCTC ACACATTCTT TTACAAGTAG AGGTACTGAT	1500
TGAAGCTCTA TATCTACTTA CAAAAGTGAA GATGTGAAAA TTTCGTTTTC ATATTCTTAC	1560
TTATTCCATT CTATCACTAA TTGTAAACAC TTTCAAGTGT TTTTGAAGA TTGATTGAAA	1620
AAATTTTATA GAAAACCTAG GTTTAGCTCC TTGCTACCAC CTTAGACTAA AAAAAAGGA	1680
GGAAACTAAG CCTCCTAAA GTTATAGTAA AATGAAATAA GAACAGGATA AATCGATCAG	1740
GACAGTCAAA TCGATTCTA ACAATGTTT AGAAGTAGAG GTGTACTATT CTAGTTTCAA	1800
TCTACTATAG GTATTGTTCC ATTCACTACC GTCAATTTTA GCACATAGTC TTCATGAAAA	1860
TATTATATCA TCATAACCA CCAGATTCTT TCGCGATATT AGCTGCCTCT GTTCGATTAC	1920
CTGCATCTAG TTTGAAAGA ATATTGGTGA CATAGTTTCG GACTGTTCCG TTGGATAGAT	1980
AAAGTTTGTC TGCAATTTCT TGGTTAGAGA AGCCCTGAGC AATTCCTTT AAACTGCCA	2040
TTTCTTGCTC CGTTAATGGA TTGGGATGCA TCATACCAC TTCCATCAAT TCAGGCGAAT	2100

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ACTCCTTGCG TCCTTCGAGG ACGGTGTGCA AGGTTTGCAT GAGGTCTGCA ATGTTTCTTT	2160
CTTTTAATAC ATAAGCATCT ACTCCAGCCT TGACCGCAGC TTCAAATAC CCAGGACGCT	2220
TGAAGGTCGT CACCACAACC ACCTTTGTTT CAAGCTTTTC TGCTCGTATC CACTCCAAGA	2280
CTTCAAGACC TGTCTTAACA GGCATTCTTA CGTCAAGGAT GGCGATATCT ACAGACTCCT	2340
TTTCTAATAG TTGGATTGCT TCTTGCCCAT TCTTGGCTTG AAAGACAGAC TCTACATCCG	2400
GTTGAAGCAT GAGCAACTGG CACATGGCAT CTCGCAACAT ACTTTGATCT TCTGCGACTA	2460
ATACTTTCAT CTACTTTCTC TCCTTATAAA GTAGTCGAAC CTGCACTTCA GTTGGATGTT	2520
TCTGACTGAT TACACTTACT TCTCCTGAAA ATGGAAAAAC ACGATTTCGG ACTGTATGGA	2580
GCTCATCCCC GCTTATAGAG GCAAAGCCAC AGCCATCATC TCTCACTGTT AGAATGAGTT	2640
CTTCTCTGT CCGTTCTAAT TTCAAGTAGA CTTTAGACGC TTTAGCATGT TTGATGATAT	2700
TGGTCACTAA TTCAAGCAA ATCATGGAAG CCGTTGACTC CAATTCCTGA GTTAAGCTAG	2760
ACTTGCCAA GTGATTCTCA ACTTGAACCT CAATTCAGC AATTCTAAC ATCTTTTCA	2820
CAGTCTCTAG TTCGGATGTC AAAGTTCTAG ACTTAAGATT TTCCACAATG GTTCGCACTT	2880
CATTTCATGA TCCTTGCTGA TCTGGTGAAT TTCTTTTAAT TCCTTTTCCA CCTGTGGATA	2940
AGCCTCCATC TGAATAACT GCAAGGCTAA ATCTGTCTTG ACACTCAGCA TAGCAAAGGT	3000
ATGTCCCAGA CTATCATGCA AATCCTGACC GATACGACTA CGTTCATTTT CAGCAAGCAA	3060
TAGATTTATC TGAGCATTTT GCTTGACCTG AGCTTCTTTC AAATCCTCGA CAATACGAAT	3120
CCGAACCAAT CCAAAAGTCA TTAATCGAC AAAAGTAAGA ATTACAAGTA GATAGAATAG	3180
AAACTCAACT TCGATTCTCT GAAAAATCAA CAGTTGCCCC ACAACAAGGA CTTGAGCAAG	3240
AAGAAAAGTC CAGACATGTA AAGACTTTAA ACTACGTACG CTGAAATGAT AACTTAAGAG	3300
ATTGGATAGG AAAAAGAAA ACCAGATATA ATTAACAGCA ACAAAGGCAG TATTCCCAAC	3360
TACATAAGTC AGCATGAGGC CCCAATATAG CCAAGATAGG CGCTGGCTCT TAGTTGTTAA	3420
AACACCCAAA TATGCCACTA CAAATAGAAT ATCAATCAAT AAATGCCAGG CAGAAAGCCA	3480
CCCAGTCACT ACAGACAGGA TGGGGAAAAT CATAAAATTT AAATGTATCC AAAACATATA	3540
ATGTATTCTT TTCAGTCTTT CAAGCATTAAT GCATTCTCCT TATGACCTTG AAGGTAAATG	3600
GTCAAACCAA ACAAACCTAC TGAAAAACA AGTAAATAAA CTGTGGCTGA TAGATTGATG	3660
CCACCCTCAT TTAAGAAGGT CTTGAGCAAC TCCATCAACT GATAGTTCGG GAGACACTTA	3720
CCTACTACTT GCATCCAGTC TGGAAATAAA GAGATAGGCA TCCAGAGTCC ACCTAAAACA	3780
GCCAACCTTA GATAAAGAAG ATTGCCACG ACAGACATCA ACTGACTAGT TGGTAAGAGA	3840

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GTCAAGGTCA AACCAAGCGC TACGAAGGCA ATACTTCCTA CTATCAGCAA AAGTGCAGCC	3900
CCAATCCAAT TTCCAAGAGA CATGTCCACA CCTCTTACAA AATGCCCAAC TGAGAAAACC	3960
ACCAAGATTG AAACCAAATA ATCAACCAGC ATACTTGTTA TCTTTGATAG ATAATATTCT	4020
ACCATATTTA CAGGGCTATG ACGCAATGTT TTCTGCCAGT TGTGTATCTT GTCGGTATGT	4080
AAAACAACTG GGAATGAGAA GATAGCTGTT GACATCATGG AAAATGCAGT CATGGAGATA	4140
AGATAATCAC GCATAAAATT CGCGAGTTCA CCTGGTGTGT CCTGATAGAT ACCAGAAAAA	4200
AATAAATAGA AAGCCGTCGG CATCCCTACT GACAATAGAT AATAGATCAA TTGTCGTTTG	4260
GTCAATAAAA ATTCTATCTT ACTAAGTGCT AGCCATCGTT TCATCTTAGT TATCTCCCTT	4320
CTGCGTTTCT TCAAAGATTG TATCCAACAA ACTACGATTA TTAAC TTCAA TTTCTTGAT	4380
GCCACATCCT GCTTGAAC TAAGTTCCCA AAAAGCATCT GCTTCGCGTG TGACTACTTG	4440
TAGAGCATCC TGTTTTTG TG ACCAGTTTTC AACCAAGTTA GACTGCTCAA TGACTTCCTT	4500
GTATGCCAGA GGAAGGATAA AATGCTTTTC AATTCCCTCA CTACGCATAG CTAGAGGCGT	4560
CGTATCACGA ATCAACTCTC CCTTATTAA AACCAAAATC CGGTCAGCCG TATGCTCTAC	4620
CTCTTCAATA TAATGAGACG AATAGAGAAT CGTGACTCCT TGCGCTTTTA GGTCCCGAAC	4680
GATTTCCCAA AAGCGTTGAC GAGTTGAAGT ATCCATGGCA GCAGTTGGTT CATCTAAAAA	4740
GACAAGCTTT GGTGCGCCAA TCAAGGTCAA GACAAAAGAG AAGAGACGCT TTTGCCCGCC	4800
TGACAAATTT TCTGCGAATT GCTCTTTT TGCTGGTCA AACTGCAATA GTTGATCGAT	4860
TTCTGATCG CTCAAGGAAT TTGGATAGAT ACGTTGAAAG AAAGCAATCA ACTCTTTGAC	4920
CTTTAATTT TGAACGATGA CATTTTCTTG AGGCAGATAA CCTCTAATAT AGTCTAACTG	4980
AGAACTCGTC ACTGACAAGC CTTGGATGGA TACTTGACCG CTTGTGACCA GTTTATCTCC	5040
AAGCAGACAG TCCAAGAGTG TGGTCTTCCC AGCACCATTG GGCCCAATCA AGGCGACGCA	5100
TTACCTTCA GCTACCTCAA AGGAAATACC CTTCAAAATA GCCTTGCCCT TGATGTTTTT	5160
ATTTAGGCTT TCTACCTTAA TCATATTCAT GATATTCTCC TTTCAACCAC TCCATTCTCA	5220
TAAGGAAAAC GACGAAAATC ATAAATCCAA ACCCAAAGC ACCACGAATG AATTGGCGAA	5280
GCAAGGTTTG GTCAAACCAA CCTGTAAACA TTTCCACTAA CCATACCAAG AGTGACAGGC	5340
CGATAAAGAA ATAGATGATC CCTCTCTTCA TTCCTCAAGC TCCTTTTCA CATCTCCGAC	5400
TAATTTCAA CCTTCTCTAA CAAGCCAAGA CATCATTTCA AAGCCAGCAA AGAGCTCCCA	5460
AGGAAAATGA TAGAACTCT CATCCAATCC CGAAAACATG AGTTAGGTCA TAACTCCTGC	5520
TACTACTAAA CTCCTGCGA TAATCATTTT ATTTCTCATC TCTTCTTCT CCATTCATA	5580
CTACAATTAT AGTCTTTTGA AATCAGAGGA GACAGAAGCT TCTGTCACTA GAAAATATGA	5640

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CAAATGTCAT AAAAAATTCT GTTCAAAACA AGCAAGATAC ACTATACAAT AAAACACAAT	5700
TAGAAAAATC TAAGGCAACT TCCTCAAAAG AGATATCAAA CCCAATTCAC ACCATAATGT	5760
AAACTAATAC TTATTTAAAA TCAAAAAGAG TAGAAATTTT TATCAGACAA ACACATATAT	5820
AGTGTATTGA ATCTATAACA GTAGGCCTTA AATACTAAAA TATTTCTATA AATTAATTTA	5880
ACTTTCCTGA TAGAGCTGTT CATATCTTAT TTCAATTCTC TAAATTATAC GTTGAACAAA	5940
ACCCCTCTAT TTCTTTCTTA AAGATTATA AGAGTTATAA AATCTGTTAA ATTTCAATGT	6000
GTATACCTAA ACTACGGTAT TTATTGAAAA GACTGGAGAC AAAAAGTATA CGTGCCAAA	6060
ATGAATTACT GAAATCAAA AAGAGAGAA CCAACTGAT TCCCTCTTAA TGTATATAAT	6120
ATCTAGTTTT AAAAAACAC ACTCACATAT CTCTGTAATG AATCGGGAAG ACAGGATTCG	6180
AACCTGCGAC ACCTTGGTCC CAAACCAAGC ACTCTACCAA GCTGAGCTAC TTCCCGAGTT	6240
AAATAGAAAA ATGCACCTA GAGGAGTCGA ACCTTAACC GCCTGATTCG TAGTCAGSTA	6300
CTCTATCCAG TTGAGCTAAG GGTGCTCCAT ATTATGCCGA GGACCGGAAT CGAACCGGTA	6360
CGATCGTTAC CAATCGCAGG ATTTTAAGTC CTGTGCGTCT GCCAGTTCG CCACCCCGGC	6420
CTCTCTAAGC GAACGACGGG ATTCGAACCC GCGACCCCA CCTTGGCAAG GTGGTGTCT	6480
ACCACTGAAC TACGTCGCA CTGTTTTCTT CTATCTAAAA ATGCCGGCTA CATGACTTGA	6540
ACACGCGACC CTCTGATTAC AAATCAGATG CTCTACCAAC TGAGCTAAGC CGGCTCATT	6600
GTTATATCTT AATGCGGGT AAGGGACTTG AACCCCAACG CCGTTAAGCG CCAGATCCTA	6660
AATCTGGTGC GTCTGCCAAT TCCGCCAAC CCGCATATAT GACCCGTACT GGGCTCGAAC	6720
CAGTGACCCA TTGATTAAAA GTCAATTGCT CTACCAACTG AGCTAACGAG TCTAAAATAA	6780
cTTGCGTTAC CTAAACGGT CCCGACGGGA ATCGAACCG CGATCTcGCC GTGACAAGGC	6840
GACGTG	6846

(2) INFORMATION FOR SEQ ID NO: 199:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2911 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 199:

GAATTCATTT TAAATAAAGA TACGGGAGAG GTAAGTGAAT TAAAACCTCA TAGGGTAACT	60
GTGACCATTTC AAAATGAAA AGAAATGAGT TCAACGATAG TGTCGGAAGA AGATTTTATT	120

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TTACCTGTTT ATAAGGGTGA ATTAGAAAAA GGATACCAAT TTGATGGTTG GGAAATTTC	180
GGTTTCGAAG GTAAAAAGA CGCTGGCTAT GTTATTAATC TATCAAAAGA TACCTTTATA	240
AAACCTGTAT TCAAGAAAAT AGAGGAGAAA AAGGAGGAAG AAAATAAACC TACTTTTGAT	300
GTATCGAAAA AGAAAGATAA CCCACAAGTA AACCATAGTC AATTAAATGA AAGTCACAGA	360
AAAGAGGATT TACAAAGAGA AGAGCATTCA CAAAAATCTG ATTCAACTAA GGATGTTACA	420
GCTACAGTTC TTGATAAAAA CAATATCAGT AGTAAATCAA CTACTAACA TCCTAATAAG	480
TTGCCAAAAA CTGGAACAGC AAGCGGAGCC CAGACACTAT TAGCTGCCGG AATAATGTTT	540
ATAGTAGGAA TTTTCTTGG ATTGAAGAAA AAAATCAAG ATTAAGATAA AAGCTATAGA	600
AAAAAATGGT TTATGTACTG AGATTAGATA GTGAGGTGAT GACATAGTTT TGTGAAAATA	660
GCCATTTATA ACTCAATTAT TTAGTTTACT TTACTTTACT AGTGATACTA TTTGGAGTTA	720
TTAATGGACT TAGTTTATAT AACTAATGAA TTGATTGAAA GGGTTAGTAT TGACAATATT	780
GGTCATATTG ACTAGAAAAT AGAGTCTATC AAAATTTAAA GGCTAATAGA GGTGATGAGA	840
CAATTCGGC TCTTTGTCAA CTGTAGTGGG TTGAAGTCAG CTAAGCTCGA GAAAGGACAA	900
ATTTTGTCCT TCTTTTTTG ATATTCAGAG CGATAAAAAT CCGTTTTTTG AAGTTTCAA	960
AGTTTCGAAA ACCAAAGGCA TTGCGCTTGA TAAGTTTGAT GAGATTATTG GTCGCTTCCA	1020
GTTTGGCATT AGAATAGTGT AGTTGAAGGG CATTGACAAT CTTCTCTTTA TCTTTGAGGA	1080
AGGTTTTAGA GGATGAACTT GATTCAGATT GTCCTCAATG AGTCCGAAAA ATTTGTCAGG	1140
CTCCTTATTC TGAAAGTGAA AAAGCAAGAG TTGATAGAGA TTATAGTGGT GTTCAAGTC	1200
TTCTGAATAG CTCAAAAGTT TATCTATAGT AGATTGAAAC TAGAATAGTA CACCTCTGCT	1260
TCTAAAACAT TGTTAGAAAT CGATTTGACT GTCCTGAATG ATTTGTCCTG TTATTATTTT	1320
ATTTTACTAT AAATCCACGT TTACGAATCT CTTCCACAC TTGTTCAATG GGGTTCATCT	1380
CTGGTGTGTA TGGAGGAATA AATGCAAAAC CAATATTAGT CGGAATCTTT AAGGTACTTG	1440
ATTTATGCCA TATAGCATTG TCCATAACGA GTAAAAGATA ATCATCTGGA TAAGCTTGTG	1500
AAAGCTCCTA TTCCTAAAGC CCCTTTATAA CCTCTTGCGA GAGAGACTAT TGACTCAGCC	1560
CTTACTTCAT GCGGATGAAA CTTCTTATCG GGTCTAGAG AGTCATAGCC ATCTGACCTA	1620
CTATTGGACC TTTTGTCTG GGAAAGTTGA GAATCAAGCA ATCACGCTGT ACCATCATGA	1680
TCAGAGTCGG AGTGGTTCGG TAGTACAAGA ATTCCTAGGA GATTATCTG GCTATGTTCA	1740
TTGTGATATG TTGCGGCAGT AACTTAGGAC TTTAGTCCTC TAGTCTGCC TATGCGATAG	1800
CAGTCCAAGG TTTAGGAGCA AGGCGACGCT AAGCTTGGTA AACTGCGAAC CGTAGAAGC	1860
TTATCGTCAA CTGAAGAAG CTGAACCTGT TGGATGTTGG GCGCATGTGA GAAGGAAATT	1920

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TTTGAAGCG ACCCCAAGC AAGCAGATAA ATCATCCTTA GGAGCTAAAG GTTTAGCTTA	1980
TTGTGATCAG TTATTTTCCT TGGAAAKAGA CTGGGAGGCT TTGCCAGCTG ATGAACGACT	2040
ACAGAAACGT CAAGAACATC TCCAGCCCCT AATGGAAGAC TTTCTTGCTT GGTGCCGCCG	2100
TCAGTCAGTT TTAGCAGGTT CAAACTAGG AAGGGCAATT GAATACAGCC TCAAGTATGA	2160
AGAAACCTTT AAGACTATTT TGAAAGACGG ACATCTGGTC CTTTCCAATA ATCTAGCTGA	2220
ACGCGCCATT AAATCATTGG TTATGGGACG GAGTAAAGA GTCCAGTGA CTCTTTTAGC	2280
CTGAGCTCAG TTTAAAAAG CGAGGGTGGT TATTTTCTCA AAGTTTGAA GGAGCTAAAG	2340
CAAGAGCTAT TGTATGAGC TTGTTGAAA CAGCTAAACG TCATCAATTA TAGTGCGTTG	2400
AATCTATAAC AGTACGCATC GACTGCTAAA ACATTTCTAT AAATCAATTT TCCTTTCTTA	2460
ATCGATTTGT TCATATCTTA TTCAATCCA TTATAAATAG CGAGAAATAT CTATCCTATC	2520
TTCTAGAATG TCTTCCAAAC GAGGAACTC TCGTAAACAA AGAGGTTTGA GAGGTTTATT	2580
TACCATGGAC TAAAGTTGTA CAAGAAAAGT GCAAATAAGA AATCTCCAGA TTAGGAACTA	2640
TCCGTGAGTT CACTAATCTG GAGATTTTTC AATAGATTCG TTATTGGGCG GTTACGATAT	2700
GATCACTACT TCGTCAGTCT TATCTACAAC CTCAAAACAG TGTTTGTAGC AACCTGCGAC	2760
TAGCTTCCTA GTTTACTCTT TGATTTTCAT TGAATATTAG AACAGAAAAA ATGCTTGGAG	2820
TATTTGTTTG TGTGTTTATT TTTATATAAC AAACATAAAA CAAAATAAAA ATATAAAAAA	2880
AGAGACAAAA AAGAACAGAA AGTAATTGAC A	2911

(2) INFORMATION FOR SEQ ID NO: 200:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6854 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 200:

GAAAAAAGT CTTGACAGAA AGCGCTATCA ATGATAGAAT GAATTCAGAT AAAAAGATTT	60
ATTTTAAAA CAAAAATGAA ACGTTTCAAA AAAAGAAATA AAGAGACAGC GCCAAGCGCT	120
ATCTTTTCTA GAAAAAATG AAACGTTTCA AAAAAGGAGG TTGCTATGAA TAGCAAAGCG	180
AAGCAAGTTT CTCTTTGGGA AAGAATCAAG AAACAAAAC TCTTGTATT GATGACTGTC	240
CCCGGTTTAG TTTTAACCTT TATCTTTAAA TACATCCCTA TGTATGGGGT TTTAATCGCA	300
TTTAAAGATT ACAATCCTTT AAAAGGAATT TTAGGGAGTG ATTGGATTGG TTTTCTGAG	360

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TTTACAAAAT TCATATCCTC TCCCAACTTT GGTATCTTGT TAGCCAACAC ATTAAAATTA	420
AGTATCTATG GTTTATTGCT TGGCTTTTAA CCACCAATCA TTCTCGCGAT TATGCTCAAT	480
CAACTCTTGA GTGAAAAAGT CAAAAACGA ATTCAGCTCA TTTTATACGC ACCAAACTTT	540
ATCTCAGTCG TTGTTATTGT CGGTATGATT TTCCTCTTCT TTTCAGTGGG AGGACCAATC	600
AACAATTTTC TTTCTATGTT TGGAAATGAAG GCTGACTTCT TGACAAATCC AGACTTCTTT	660
AGACCTTTAT ACATCTTTAG TGGTATCTGG CAAGGAATGG GCTGGGCTTC AACGCTCTAC	720
ACGGCAACAT TGGTAAATGT AGATCCAGCC TTAGTAGAAG CAGCCCGACT GGATGGAGCC	780
AATATCTTCC AACGAATCTG GCACATTGAT ATTCCAGCTC TTAAGCCTAT TATGGTTATC	840
CAATTTGTTT TAGCTGCAGG TGGAAATATG AATGTCGGAT ATGAAAAAGC ATTCTTGATG	900
CAGACATCGT TAAATTGCCC AACTTCTGAA ATTATCTCGA CATATGTCTA TAAAGTTGGT	960
CTTGATCAG GAGACTATTC TTAACAACA GCGGTTGGTT TGTTTAATGC AGTGATTAAC	1020
GTAGTATTGC TTGTTGCAGT TAACCAAATC GTTAAACGCA TGAATAATGG TGAAGGAATT	1080
TAAGGAGGAA AGTATGAAAA ATTCGATTAT GGATACAAAA TTGATAGAC GTATCTTACT	1140
CTTAAATAAA ATCATTATTG TCTTTATCGT TTTGATGACT TTGCTTCCTT TACTTTATAT	1200
CGTCGTAGCA TCCTTTATGG ATCCTAAGGT TCTGGTTAGT AGAGGGATTA GCTTTAATCC	1260
AGCCGATTGG ACTGTAGAAG GTTACCAGCG TGTATTCAGT GACCAATCTA TTCTAAGAGG	1320
TTTTATCAAT TCTCTACTAT ACTCTTTTGG ATTTGCAGCT TTAACAGTCT TGCTATCTGT	1380
GTTTACAGCT TATCCTCTTT CTAAGAAAGA CTTGGTTGGA CGTCGTTGGA TTAACACTTT	1440
CTTGATTGTA ACTATGTTCT TTGGTGGTGG TTTAGTCCCA ACTTACTTGC TCGTAAAAGA	1500
ATTGGGAATG CTCAACTACTC CATGGGCTAT CATTGTTCCA GGTGCTGTTA ACGTTTGGA	1560
TATTATTCTT GCTAGGCCT ATTTCCAAGG ATGCGCTGAA GAATTAGTTG AAGCTGCTGT	1620
CATTGATGGT GCAAATGATT TACAGATTTT CTTCAAAATC ATGCTTCCTC TTGCAAAACC	1680
AATTATGTTT GTTCTCTTCC TTTATGCTTT TGTAGGACAG TGGAATCAT ACTTTGATGC	1740
AATGATTAT ATCAAGGATC CAAACTTGGA ACCATTGCAA CTTGTACTTC GTAAAATTCT	1800
CATTGAGAGC CAACCAGGTC AAGACATGAT TGGAGCACAA GCGGCTATGA ATGAAATGAA	1860
ACGTTTAGCT GAATTGATTA AATACGCAAC TATTGTCAAT TCCAGCTTGC CATTGATTGT	1920
TATGTATCCA TTCTTCCAAA AATACTTTGA TAAAGGAATT ATGGCTGGTT CACTTAAAGG	1980
ATAAAAAAAG AAAAAATAAA AGGAGTTTTC TCATGAAATT CAAAACATTC TCAAAATCAG	2040
CAGTTTGTGTT GACAGCTAGT TTAGCAGTAC TTGCAGCCTG TGGCTCAAAA AATACAGCTT	2100
CAAGTCCAGA TTATAAGTTG GAAGGTGTAA CATTCCTCGCT TCAAGAAAAG AAAACATTGA	2160

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AGTTTATGAC AGCCAGTTCA CCGTTATCTC CTAAAGACCC AAATGAAAAG TTAATTTTGC	2220
AACGTTTGGA GAAGGAAACT GCGGTCATA TTGACTGGAC CAACTACCAA TCCGACTTTG	2280
CAGAAAAACG TAACTTGAT ATTTCTAGTG GTGATTACC AGATGCTATC CACAACGACG	2340
GAGCTTCAGA TGTGGACTTG ATGAACTGGG CTAAAAAGG TGTATTATT CCAGTTGAAG	2400
ATTTGATTGA TAAATACATG CCAAATCTTA AGAAAAATTT GGATGAGAAA CCAGAGTACA	2460
AGGCCTTGAT GACAGCACCT GATGGGCACA TTTACTCATT TCCATGGATT GAAGAGCTTG	2520
GAGATGGTAA AGAGTCTATT CACAGTGTC ACGATATGGC TTGGATTAAAC AAAGATTGGC	2580
TTAAGAAACT TGGTCTTGAA ATGCCAAAA CTACTGATGA TTTGATTAAA GTCCTAGAAG	2640
CTTTCAAAA CGGGGATCCA AATGGAAATG GAGAGGCTGA TGAAATTCCA TTTTCATTTA	2700
TTAGTGGTAA CGGAAACGAA GATTTTAAAT TCCTATTTGC TGCATTGGT ATAGGGGATA	2760
ACGATGATCA TTTAGTAGTA GGAATGATG GCAAAGTTGA CTTCACAGCA GATAACGATA	2820
ACTATAAAGA AGGTGTCAAA TTTATCCGTC AATTGCAAGA AAAAGGCCTG ATTGATAAAG	2880
AAGCTTTCGA ACATGATTGG AATAGTTACA TTGCTAAAG TCATGATCAG AAATTTGGTG	2940
TTTACTTTAC ATGGGATAAG AATAATGTTA CTGGAAGTAA CGAAAGTTAT GATGTTTAC	3000
CAGTACTTGC TGGACCAAGT GGTCAAAAC ACGTAGCTCG TACAAACGGT ATGGGATTTG	3060
CACGTGACAA GATGGTTATT ACCAGTGTA AAAAAACCT AGAATTGACA GCTAAATGGA	3120
TTGATGCACA ATACGCTCCA CTCCAATCTG TGCAAAATA CTGGGGAACT TACGGAGATG	3180
ACAAACAACA AAACATCTTT GAATTGGATC AAGCGTCAA TAGTCTAAAA CACTTACCAC	3240
TAAACGGAAC TGCACCAGCA GAACTTCGTC AAAAGACTGA AGTAGGAGGA CCACTAGCTA	3300
TCCTAGATTC ATACTATGGT AAAGTAACAA CCATGCCTGA TGATGCCAAA TGGCGTTTGG	3360
ATCTTATCAA AGAATATTAT GTTCCTTACA TGAGCAATGT CAATAACTAT CCAAGAGTCT	3420
TTATGACACA GGAAGATTG GACAAGATTG CCCATATCGA AGCAGATATG AATGACTATA	3480
TCTACCGTAA ACGTGCTGAA TGGATTGTAA ATGGCAATAT TGATACTGAG TGGGATGATT	3540
ACAAGAAAGA ACTTGAAAA TACGGACTTT CTGATTACCT CGCTATTAAA CAAAAATACT	3600
ACGACCAATA CCAAGCAAAC AAAAAGTAGA GGTGATTAT GGGAGATAAG AAATACACAG	3660
TAGAAAAAGC CAATCGTTTT ATAGCAGAAA ATAAACATCT CGTTAATACT CAATATAAGC	3720
CTGAAGAACA TTTTTCAGCT GAGATTGGTT GGATCAATGA TCCAAATGGA TTTGTCTATT	3780
TTCGTGGAGA ATACCATCTC TTTTATCAAT TCTATCCATA TGATAGTGTT TGGGGGCCTA	3840
TGCACTGGGG ACATGCTAAA AGTAAGGACT TGGTGACTTG GGAGCACTTG CCAGTGGCAC	3900

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TTGCTCCTGA CCAAGATTAT GACCGAAATG GTTGTCTCTC AGGCTCTGCC ATTGTCAAGG	3960		
ATGATCGCCT CTGGCTCATG TACACTGGAC ATATCGAAGA AGAAACCGGT GTCCGCCAAG	4020		
TGCAAAATAT GGTATTTTCA GATGACGGGA TTCACTTTGA AAAGATTTC CAAATCCAG	4080		
TTGCAACTGG ATCAGACTTA CCAGATGAGT TGATTGCTGC TGATTCCGT GATCCAAAAC	4140		
TCTTTGAAAA AGATGGACGC TATTACTCCG TAGTAGCTGC CAAACACAAG GATAATGTGG	4200		
GCTGTATCGT TCTACTAGGG TCCGATAACC TAGTAGAATG GCAGTTCGAA TCCATCTTTT	4260		
TAAAAGGGGG AGAACACCAA GGTTTTATGT GGGAATGCCC AGATTACTTC GAGTTAGATG	4320		
GGAAAGATTG CCTTATTATG TCACCCATGC GTTATCAGCG TGAGGGAGAC TCATATCATA	4380		
ACATCAACTC ATCGCTTTTG TTCACGGGTA AGGTAGATTG GAGAGAAAAA CGTTTATCC	4440		
CAGAATCAGT TCAAGAAAT GATCATGGCC AAGACTTCTA TGCGCCTCAA ACATTGTTGG	4500		
ACGATCAAAA TCGTCGTATC CTGATTGCTT GGATGCAGAC ATGGGGGCGT ACCCTTCCAA	4560		
CCCATGACCA AGAACACAAG TGGGCATGTG CCATGACTCT ACCTAGAATT CTAAGATTGG	4620		
AAGATGGCAA ACTAAGACAA TTCCCTGTTA AAAAAGGCCA ATATCAAATC CAAATAGATA	4680		
AAGATTGTCA TTACCACTTA GGAAATGATA TAGATTATCT TGAATTGGT TATGACAGTA	4740		
ATGCGCAGCA AGTTTACATT GATCGTAGCC ATCTTATTCA AAAAATCTA GGTGAAGAAG	4800		
AACAGGACAC TAGTCGACGG TATGTAGATA TTGAAGCTAA AGAATTGGAA GTTGTCTAG	4860		
ATAAAAATTC CATCGAGATT TTTGTCAATC AAGGTGAAGC AAGCTTGACT GCAACTTATT	4920		
ACTTAACGGT GCCAGCTGAG CTATCACGAA TTGATTAAAA ATTAAGTTAT TTCTCCTAAA	4980		
GAAAAAGTTC TCTTTCTAAA ATAGTGGAAG GAGGACTTTT TGTGTTTGG GTATATAAGC	5040		
TTAGTTTATG GTATTTGTAA AATTGGTGTT GGATTATGAT TTAAGCTAGT TTTCTAAAGA	5100		
ATTTGAAAAA AATTTTATTT AAGCAAAAAA ACCTTGTTT CAGGCTTTT CCTGTTGTAT	5160		
TTAGATGCCC CCTACAGGGA TTGTAGGAGA TATGTTGCTT AGATGTTCTT GATTTTCTGG	5220		
TGTTTGTAA CGTTTAAATG AGTTTTTTGA GTTTGTTGGT GGGGCGTTGC CCGCAATTG	5280		
CCCGACTTAT TGCTTGAAAA AGAATTTAAA ATATAGTATA GTTAATTATA GATTAACACT	5340		
TGCTTGAGG AACTGATGAA GAACAATGAA AGATTAGGTA TTAAATTAAG TAGAGATAGC	5400		
GTTTTAGGAT TGAGGGAAGT TAGAAGGCTT TATTTAGGCA GTTCAGATAT CCCAGTTTCT	5460		
GATGGCTATG TGATTGAAGT TGCTTATAAC CAGATATCAC ATGAGATTGA TATTATTGAT	5520		
TGGGTAGAGT TGAACAAGTC AAAAATTAAG ATAAGTGAAA TTAGTGAAAG CGTGGATATA	5580		
GATGCCACTA GCTTGAGAAC AACTTTGACT TTAGACACAT TAGTATATGA AGGTATGAGA	5640		
GATATACAGT TAAAGTTGAG AGAGCTTACA AAGGGGAGAG TATTCTTTTC ATTTGTAGTG	5700		

1179

AAGTTAGTTT TGTTCCTTC TATTTTAAAG AAAAAAGATT TACTAGAAAA ATTTCAAGAA 5760
AAGTGTTAAT CAAGTATTGA CACTTTATCT GGATTTCGGT ATAATATGCT TAGAAAGGAA 5820
TCTTTCCTAAA TTTTTCCTCGT CCTTATGTGT TAATCAAAGA CGAATACAAA AACATATTTT 5880
TTTACTCTAA AAAGTGTTAA TCAATGATGT ATTTGTTAGA GAGGTAGATA AATGGAATTG 5940
AGAGCACCCAC CAGTTATAAT AGTATAAAAC GTATAATAAA AATATTTTAA CTTGAATTAT 6000
AGAAAAGGAG AAACAAATCA TGAAACAAAA ACAACCGATT GTTCTAGAA CGAAACAACA 6060
TACATTTGAA GAGCTTATTC AAGACCAAAA GTTAGAAAGA TTGGCTAAGT TGTCGCCCCA 6120
TTTGTTGGA AGGTATGGT TTAGTGCTAG CTGTGCTCT TCATTTGCGA ACTTGATTAA 6180
AGAAGCGTAT GGGGGTAAAA ATCTAAACGT AGTTTATGCG AGTCGGATGT TGGCTCTCTG 6240
GAATATTGCT TGCAGTTGTT ATCATAAGGC TGATGGGTAT TCTTTAGCAG ATGCGCTTTT 6300
TAGTGATAAA AAAATTGTC TAGATTCTTA CTATTACCAC AAGAATACCT CTAATACCAT 6360
AACTAGTGAT GTGATAAAG ATGTTTACGA TAATTATAAT AATTATATGG TTTTAACTCG 6420
AGAAGCGACA CCTGAATACA TTTATGTTGT ACAAACGAA ATGCCAAAAG ATTCAGATTT 6480
ATATTTTAT ATTAGAGAAG TTCTGGGATT ATCGTTTAGT ACCATGCATT ATGCATTTT 6540
AGTCAAGGTT CTGTCAGGAG CGCTTGCTAG AAAATATAAG CCATATCGAA ATTGAATTAT 6600
TTAAATTTAT ACTCTTCGAA AATCAAATC AAACCAAGTC AGCTTCGCCT TGCTGTACTC 6660
AAGTGCTGTC TGTGGCTAGC TTCTTAGTTT GCTTTTGTAT TTTCATTGAG TATTACTCTT 6720
ATGGTAGTTA TTTATGGCAT AATAATATTG ATTTGGGAGT TATAGCGAAA ATTTTAGGTT 6780
CTATAATATT TGTAGTGGT AAACCACTAT AGATATTATG GAGCCTATTT ATGTAGAAA 6840
AAAGTCCCAT ATGA 6854

(2) INFORMATION FOR SEQ ID NO: 201:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3895 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 201:

TCCTTGCTAA GTTTATACTC AATGAAAATC AAAGAACAAA CTAGGAAGCT AGCCACAGGT 60
TGCTCAAAGC ACCGCTTTGA GGTTCAGAT AAAACTGACA CGGTTTGAAG AGATTTTCGA 120
AGAGTATTAA TTTACATAAA TAGCCAGTGT TTGATAGGT TTGAGTAGAA TTTTCTCAGA 180

1180

CACTTCTGCA TCTTCATAGT TTGATATCAA AATCTGTCCA TTTTGGTAGA CTGCTGGCAA	240
GTGATTTCaA CTTCTTTAGC ATAAAAGTTA TTGAGCACTA GTAACCTTTG ATCCTCAAAC	300
TGGCGTTCAA AAGCGTAGAC TTGTTTGCTA TCTTCAAAGG CTGGTTTGTA ACTTCCTTCT	360
GAAATGATTG GCATTTCTCT ACGCATCGAA TCAAGTCTTG ATAGAAGGTA AAAATCGGAC	420
CCTGGATTTC ATTTTCTACA TTGATGTATT TATAGGATTT ACCAGCTTTC AACCAAGGAG	480
TGCTGTGTA AAATCCTGCA TTTTCCGAAG CATCCCCTG CATGGGAATG CGTGAATTAT	540
CACGCGACTT AGCTTGAATA ATCTGGAAGG CTTCTTGCTG ACTCTTTCCT TCTTCTAAGA	600
GCATCTGATA GGCATTAAGC GATTCGACAT CCACATAATC AGCCATAGAA TCATAGTCTG	660
GGTCAATCAT CCCGATTTC TCACCCATGT AGATATAAGG TGTCACCGT GACAGGTGAA	720
TGCTGGCTGC TAGCATGGTG GCTCCTTCCT TGCGGAAGTT TTGAATATCG ACAAACGGT	780
TCAAGGCACG TGGTTGATCG TGATTATTC AAAAGAGGGC ACTCCAACCG TCTTTATCAC	840
TCATTTCTCT ACCCCAATA TGGTAAAGAC TCTTCAACTC TTCAAATCA AAGGGAGCCA	900
AGGTCCACTT TTGTCCATCC TTATAGTCCA CCTTGAGGTG ATGAAAATTA AAGGTCATGG	960
ATAATTCCTG ACGATCAGGC GACGAATAGA GGACACAGT TTCCATGGTG GTAGAAGACA	1020
TTTCCCAAC TGTCATAAAG CTATCGTCGG ATCCAAAAGT GGCTTGGTTC ATCATACGCA	1080
AATAGTTATG AACGATGGGT TTGTCTGTAT AAGCTGGCTT CCCTTCATTT TCAGGACAGT	1140
CCACTGAAAC CTCGTCCTTA CCGATCAAAT TGATCACATC AAATCGGAAA CCTTTGACAC	1200
CCTTGTCGCG CCAGAAATTA ACAACCTTGA AAAGCTCCTT ACGGACATTG GAATTGCGCC	1260
AGTTAAGGTC AGCCTGGGTC TCATCAAATA GGTGAAGATA GTATTTCCCA GTATCCCCGA	1320
AAGGCGTCCA TGCAGAACCA CCAAACCTAG ACTGCCAATC TGTTGGTTGG TCTTGATGA	1380
AGAAAAAGTC TTGATAATAC TTATCACCAG CTAGGGCTTT CTGAAACCAT TCATGCTCTG	1440
TCGAACAATG ATTAAGTACC ATGTCCAGCA TAAAGTCAAT CTTGTGCTCT TTACCGACAC	1500
ACACCATTTT CTCAAAATCA GCCATATCAC CAAAAGAGG ATCCACTGCC ATATAATCTG	1560
AAATATCGTA ACCATTATCC CGTTGAGGGC TTGGATAGAA TGATTGAGC CAGACCATAT	1620
CCACACCTAG TTTGGCTAAA TAGGGAATTT TTTCGATAAT CCCACGGAAA TCCCCAATAC	1680
CGTTTTCAGT GGTGTCTTTG TAAGATTTTG GATAGATTG ATAGACTACT TTTCTTTAT	1740
CAAGTGTCTAT CTGTTCTCTC TTTTCTGATA AAAGGGAGGA AGCAGTCTTC CGTCCCTATT	1800
TGTGCTATTT CAATTATACT CAATGAAAAT CAAAGAACAA ACTAGGAAGC TAGCCACAGG	1860
TTGCTCAAAA CACTATTTTG AGGTTGCAGA TAGAGCTGAC GTGGTTTGAA GAGATTTTCG	1920
AAGAGTATTA GATTCGTGTA GCGACCATGA GAGATGCTCC AGCTTGGATC GTTGTGCGAT	1980

1181

AAGTTCCGGG AATAGTCGCT GTATAAGCAT CTTGGTTGGT GATGATAACA GGAGTTTCTG	2040
TCACCAGACC TGCAGCCTTA ATGACATCCA TATCAAAACG AATCAGTTGC TGACCAACTG	2100
TAACGTGATC TCCTTGGACT ACAAGACTTT CAAAACCTTT GCCATCAAGA CCTACTGTAT	2160
CCATACCGAT GTGGATGAGC AATTCAACTC CCTCGTCAGA GACAATGCCG ATGGCATGCT	2220
TGGTAGGGAA AAGAACCGTC ACTGTCCCAT TAACTGGAGA GGTCAACTCA CCTTGGCTTG	2280
GTTCAATGAC TAGACCTTGC CCCATGACAC CTGATGCAAA AATAGGATCC GTCGCTTGAC	2340
TCAATTCTTT CACTTGGCCA GTTAGTGGGC TGATAATTTT TACCGAAGTA AGTTCTACTG	2400
GTTCATGGTT CACAAATTCT GCTTCTTCTT GAGCAACGAA TTCTGCCTGC AAGTTCGTAT	2460
CGCCCTCTGT TTTTGTAAG AGACCAGCCT TCGGAAGAA GAAAGTCAAG AGCATTGGA	2520
CAACAATCGC AACTAGCATA GTTCCTGCAA ATGGCAGCAT GTATTGAGGT TGAATAGAGA	2580
GAATACCTGG CAAACCACCG ATACCAATAG AAGCCGCAGT TACATTAAAA GTAACGATA	2640
ACATGCCTGC AAGGGCTGAA CCAGTCATCC CAGCAACAAA TGGATAAATA TATTTTACGT	2700
TAACCCCAA AAGAGCTGGT TCTGTAACAC CGAGATAGGC TGAATGGTT GCAGGAAGTG	2760
AAACCTGAGC CTCACGCTCA TCATGGCGAT GCATGAAATA ATAGGCAAAC ACGGCTGAGC	2820
CTTGAGCAAT ATTAGAAAGA GCAATCATTG GCCATAGGGC AGTGCCACCA GCATCCGCAA	2880
TCAATTGTGT ATCAATGGCA TTGGTCATAT GGTGCAGACC TGTGATGACA AATGGAGCT	2940
AGAGGGCGCC AAAAATTGCA CCGAAGAGCC ATTTAACTGG ACCAGTTAAA CCTGCCAAGA	3000
CAACTGATGA AAGTCCTTGT CCAATTGTCC AACCATTGG TCCCAAAACA GTATGAGCCA	3060
AAATCAAGGC TGAATCAAT GACAAGAAAG GTACAAAAT CATAGAAATG ACTTCTGGGA	3120
TATGCTTG TG CCAGAAGATT TCAAGATAAG ACAGACTCAA ACCTGCAAGC AAGGCTGGGA	3180
TAACTTGGGC TTGGTAACCG ATACGATTAA CAGTAAAATA GCCAAAATTC CAAACCCAGT	3240
TTGCCGCGAT ATCAGCTGCT GCGTGAAG CAACCGCATA GGCATTGAGC AACTGAGGCG	3300
ATACCAAACA GATTCGAGA ACAATCCCA AAATTGGCT GGTCCCATC TTACGAGAAA	3360
CAGACCAAGT AATCCCTACT GGTAAGAACT GGAAGATAGC TTCACCAGGC AACCAGAGGA	3420
AGTGATTGAC ACCTGCCCAA AACTGAGAGG ATTCTGTGAT GGTCTTGCCA TCCAACATCG	3480
ACCAATGGAC ACCTCCAAG ACATTACGGA AACCAGGAT CAATCCTCCG ACTATCAAGG	3540
CTGGAATAAT CGGAGTAAAA ATCTCCGCCA GAGTGGTCAT AACACCTTGG ACCACGTTTT	3600
GATTACTCTT AGCTGCAGAC TTGGCTGCTT CTTTGGAAAC ACCCTCAATA CCTGAAACGG	3660
CTGTAAAATC ATTATAAAAG ATGGGCACGT CATTCCAAT GATTACCTGA AATTGACCTG	3720

1182

CATTTGTAAA GGTTCCTTTA ACAGCTGGAA TTGACTCGAT AGCTTTAACA TTAGCCTTCT	3780
TATCATCTCC TAAACAAAC CGCATCCGTG TCGCACAGTG AGTTACGGCA GTCACATTTT	3840
CTTTGCCTCC GATTGCCTGA AGCAGATCTT TGGCTTCTTG TTCAAATTTT CCCGG	3895

(2) INFORMATION FOR SEQ ID NO: 202:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3936 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 202:

AGGATCGCCG CTCCAGCTAC TAAGTCTCGT GCAGTGCCGA TTTATCAAAC AACATTTTTT	60
GTTTTTGATG ACACGTAGGA AGGTGCCGAT CTGTTTGCCT TGAGGAAACC AGGGAACATT	120
TATACTCGTA TCACCAATCC TACAACAGCT GCCCTTGAAG GTGGTGTGTA AGCGCTAgcA	180
ACAGCATCAG GTATGACTGC AGTGACTTAT ACGATTTTGG CGATTGCCCA TGCTGGTGAC	240
CATGTAGTGG CTGCTTCGAC TATTTACGGT GGAACCTTCA ATCTTTTGAA AGAACCCCTT	300
CCTCGTTATG GTATCACAAC AACCTTTTTC GATATTGATA ATTTGGAGGA AGTAGAAGCA	360
GCTATCAAAG ACAATACCAA GCTTGTCTTG ATTGAAACCT TGGGTAACCC CTTGATTAAT	420
ATTCGAGACC TGGAAAACT GGCAGAGATT GCTCATAAAC ATCAAATCCC ACTTGTGTCA	480
GACAATACTT TTGCAACACC TTATTTGATT AACGTCTTCT CTCATGGCGT TGACATTGCC	540
ATTCACCTCTG TGACTAAGTT TATCGGTGGG CATGGTACAA CTATTGGAGG AATAATTGTC	600
GATAGTGGTC GTTTGACTG GACGGCTTCA GGGAAATTCC CTCAATTTGT TGACGAGGGT	660
CCAAGCTGCC ACAATTTGAG CTATACTCGT GATGTGGGTG CAGCAGCCTT TATTATAGCT	720
GTTCGAGTTC AATTGCTTCG TGATACAGGT GCAGCCTTGT CACCATTCAA TGCTTTCCTC	780
TTGCTACAÅA GACTTGAAAC CTCTTCACTT CGTGTTGAAAC GCCATGTACA AAATGCTGAG	840
ACAATTGTTG ATTTTCTTGT CAACCATCCT AAGGTAGAAA AGGTAAATTA TCCAAAACCTT	900
GCAGATAGTC CTTATCATGC CTTGGCTGAG AAATACTTGC CAAAAGGTGT CGGTTCAATC	960
TTTACCTTCC ACGTCAAAGG TGGCGAGGAA GAAGCACGCA AGGTCATTGA TAATTTAGAA	1020
ATCTTTTCTG ACCTTGCAAA CGCGGCAGAT GCTAAATCGC TTGTTGTCCA TCCAGCAACA	1080
ACCACTCACG GTCAATTGTC AGAAAAAGAC CTAGAAGCAG CAGGTGTCAC ACCAACTAA	1140
ATTCGTTTGT CAATCGGTCT TGAAAATGTA GAAGATTGTA TTGAAGACTT GCGCTTGGCC	1200
TTGGAAAAAA TTAAAGTAA AAGAAGATAA ACAGTGGGCT TCGACTCACT GTTTTGTATT	1260

1183

TTCCCTCAGG CATGATATAA TGGTTACAGA AGTCTAGAAA GAGGAACGAT ATGAACGAAA	1320
TCAAATGTCC CAACTGTGGG GAAGTCTTTA CAGTAAATGA GAGTCAGTAT GCCGAACCTT	1380
TGTCCCAAGT GAGAACGGCA GAGTTTGATA AGGAACTACA CGATAGGATG AAGCAGGAAC	1440
TGGCCTTGCC TGAGCAAAAG GCCATGAATG AGCAACAGAC TAAACTGGCT CAGAAGGATC	1500
AAGAAATTGC GCAATTACAG AGTCAGATCC AAAACTTTGA TACAGAAAAA GAATTGGCCA	1560
AGAAAGAGGT TGAACAGACA AGCCATGAGG CTCTCTTGGC TAAGGACAAG GAAGTACAGC	1620
TCTTAGAAAA TCAGTTGGCT ACCTTGCGTT TGGAGCATGA AAATCAACTA CAAAAGACCC	1680
TTTCTGACCT AGAAAAAGAA CGGGATCAGG TTA AAAACCA ACTACTTTTG CAGGAAAAGG	1740
AAAATGAATT ATCTTTGGCT TCTGTTAAGC AAAACTACGA AGCCAGCTC AAGGCAGCTA	1800
GTGAACAAGT CGAGTTTAT AAGAATTTTA AGGCTCAACA ATCTACAAAA GCGATTGGGG	1860
AAAGCCTAGA ACAGTATGCA GAGAGTGAGT TTAACAAGGT TCGTAGTTTC GCCTTTCCAA	1920
ATGCTTACTT TGAGAAGGAT AACAAAGTCT CTTGCGTGG GTCTAAAGGG GACTTTATCT	1980
TCCGTGAGTG TGATGAAAAAT GGAGTTGAAA TCATTCTAT CATGTTTGAG ATGAAAAACG	2040
AAGCGGACGG AACAGAGAAG AAGCACAAGA ATGCAGATTT TTACAAGGAA TTGGACAAGG	2100
ACCGTCGGGA GAAGAACTGT GAGTATGCCG TTTTGGTGAC CATGCTTGAG GCTGATAATG	2160
ACTACTTTAA CACAGGGATT GTTGACGTCA GTCACGAGTA TGAAAAATG TATGTTGTTT	2220
GTCTCAATT CTTTATCCAA TTGATTGGTC TCTTACGTAA TGCGGCGCTA AATTCCTTAA	2280
AATACAAGCA GGAGTTGGCC TTGGTTCGCG AGCAAAATAT TGACATTACG CATTTTGAGG	2340
AAGATTTGGA TGCCTTTAAG CTAGCTTTTG CTAAGAACTA TAATTCAGCT TCGACTAACT	2400
TTGGAAAAGC TATTGATGAA ATCGACAAGG CCATCAAACG CATGGAAGAG GTTAAGAAAT	2460
TCCTGACCAC ATCTGAAAAC CAACTCCGTT TAGCTAACAA CAAATTGGAA GATGTCTCTG	2520
TTAAAAAAT GACCCGGAAT AATCCAACAA TGAAAGCGAA GTTCGAAGCA CTGAAGGGGG	2580
AGTAGAAAGC AAAAATGAAC GGTATTATTA ACTTAAAAA GGAAGCAGGA ATGACCTCGC	2640
ATGATGCGGT TTTTAAACTG CGTAAGATTT TGGGAACCAA GAAAATTGGT CATGGTGGA	2700
CCTTGATGCC GGATGTGGTG GGTGTTTTCG CGATTGCGGT TGGCAAGGCG ACACGCATGG	2760
TCGAGTTTAT GCAGGACGAG GGTAAGATCT ATGAGGGGGA AATCACTCTG GGCTATTCCA	2820
CGAAGACTGA GGATGCTAGT GGGGAAGTGG TCGCAGAAAC CCCTGTTTGG TCTCTCTTGG	2880
ATGAAAAGCT TGTGATGAA GCGATTGCTA GCTTGACTGG GCCTATTACT CAGATTCCCC	2940
CTATGTATTC GGCAGTTAAG GTTAATGGTC GCAAGCTCTA TGAGTATGCG CGTGCTGGTC	3000

1184

AGGAAGTGGG	GCGTCCAGAA	CGTCAGGTGA	CCATTTATCA	ATTTGAGCGA	ACAAGTCCGA	3060
TTTCTTATGA	TGGCCAACTT	GCCCGATTCA	CTTTTCGTGT	AAAATGCAGT	AAAGGGACGT	3120
ACATCCGTAC	TTTGTCACTT	GATTTGGGTG	AAAAGCTTGG	TTATGCGGCT	CATATGTCCC	3180
ATTTGACTCG	TACTAGTGCT	GCTGGCTTAC	AATTAGAAGA	CGCTCTTGCC	TTGGAGGAAA	3240
TTGCTGAAAA	AGTAGAGGCT	GGGCAATTAG	ATTTTCTCCA	TCCTTTAGAG	ATTGGGACAG	3300
GTGACCTTGT	CAAAGTTTTC	CTAAGTCCAG	AAGAGGCTAC	AGAAGTTCGC	TTGGGTCGTT	3360
TTATTGAGCT	AGACCAAACG	GACAAAGAAC	TGGCTGCCTT	TGAAGATGAT	AAATTGTTAG	3420
CCATTCTAGA	AAAACGGGGC	AATCTCTATA	AGCCAAGGAA	GGTTTTTAGC	TAGATCGTTT	3480
AGGAATAAAA	ATCGGGTGAT	AGATAACAAT	TGCTTGATAA	AACCCCATAC	TAATAGTAGA	3540
ATGGTTTTGG	GAATTATAAT	ATTCCAATTG	TGCGAGTTG	TAGGTACTCA	AATAATCTAT	3600
ATAGAAATTT	AGAGGTGTGA	AATGAAGCAA	TTTAAAATTC	TTTCAGATAA	ATATTTAGAG	3660
TCCATTACAG	GTTCTGATGG	GAACCTAGGC	CCAGGATTTG	GTGTGATAAT	TCCATGATGC	3720
GAAATGAGTT	TCGAGAAAGG	GTGGAGCAAC	TTCTTCAACA	AAAAGAAATA	AATGAAATAA	3780
GTGAGTTGAG	TCACCTGTTT	CGTCTTGCTA	TACAAAATTT	AGACAGAAAT	GAAAAATACC	3840
AATCGGTCAT	GGCCAATTTG	AGTCAAGGGT	TGTCACCTTA	CCTCATGACG	CATCATTACC	3900
AGGCACCTAA	GTCTGTCATT	GATTTTGTTT	TATGGA			3936

(2) INFORMATION FOR SEQ ID NO: 203:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3230 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 203:

CATCCAGCAA	CTGCTCCTCT	GAGCGTTTCA	AAATTGATGT	AATTTTTCTA	GTTTTTCTA	60
ATAAATGTGC	CATTTTTCAC	CTCGAATTTA	ATCGCTATCA	TTATAACATA	AAAACGTCTC	120
TTTTTCAATA	ATTATCTGAA	AATTCCTTAT	TGACTTGCAT	TGACTTACAA	TTAATTAAA	180
AACCAGAATA	TTTTTAATTA	AATGTTTCCT	TTTCTATTGA	CAAGTTCCTT	ATTTTGTGT	240
ATCATAATAT	TATAAAAGAT	AATATAATAA	TTTTATTGTG	CTTTTCACAT	TCGGTCTCCT	300
TATATAAAAA	AGCGATTTCAT	TTTGAACCGC	TTTTTCTTAT	TTATCGCCTT	TGTTACGAAT	360
AACAAAGCCT	GTTTGCTTTT	CGCTTAAAGT	ATTGCGTGGT	TTTTTATTAT	CCTTACGGTA	420
ACGTTTTTCC	TTATCAAAAC	GATCGTTGCC	ACGACTTCCT	TTTTTGAACT	CATCACGGCG	480

1185

ACCATTTGCCA CGGCGATCAC GCTCTCGACG GTCGTCCCCA CGACGGCCTC CACGACCTCC	540
CTTAGCTTTA CCACCGAAAC CATTACCTGA TGGTTTAAAC GGTAGTGGtT TTTCACGTGC	600
AATCTCCACT TCTGGAAGGC TATCTGGGTC TTGGACTGTC AGACTCAAGA TATACATTGC	660
CAATCTTCTT GGAGTAAACT CAGCAGCCAA TTTGCGAGCA TCCTTACCAA ATTTCTCAAA	720
GTTGGCACGA ATGGTTTCAT CTGCAAAATC ACGTTCGATT TTCTTGAGAG CTACCTGTTT	780
TTTTGATTGG AAGGATTCTT CTACACTTGC AGGTTTGAGA CCTTTCATGC GTTCTTAGT	840
CAAGTTTTC AATGATTGAA GGTAACCCAT TTCGTTTGA GCAACAAAAG TAATAGATTG	900
ACCTGACTTA CCAGCACGAC CTGTACGACC GATACGGTGA ACATAACTCT CAGGATCTTG	960
TGGAATATCG TAGTTGTAGA CATGGGTAC ACCTGAAATA TCCAAACCAC GCGCTGCAAC	1020
GTCTGTCGCA ACCAAAACAT CAAGATTGCC ATTTTAAAG TCACGAAGGA CACGAAGACG	1080
TTTGTTTGG TCTAGGTCGC CATGAATTC TTCTGCACGG AAGCCACGAA TTTTCAAACC	1140
ACGAGTCAAT TCATCCACAC GGCGTTTGGT ACGACCAAAT ACAATAGCGA GTTCTGGTTG	1200
TGCCACATCC ATGAGACGAG TCATGGTGTC AAATTTTCT TGTTCCTTAA CACGGATATA	1260
GTACTGGTCA ACCAATTCTG TTGTCAATTC CTTAGCCGCA ATCTTGACAT GTTCAGGGGC	1320
TTTCATAAAC TGAACACCGA TACGTTTGAT GGCATCTGGC ATAGTTGCTG AGAAAAGCAA	1380
AGTTTGACGG TTCTCAGTA CACGGGAAAT AATGGCTTCG ATGTCTTCAA GGAAGCCCAT	1440
GTTAAGCATT TCATCCGCTT CGTCAAGGAT AAGGGTTTCA ATGTCTTGTA ATTTCAAGGC	1500
CTTGCGTTTA ATCAAGTCCA AGAGGCGACC TGGAGTTCCC ACCACAATAT GGGCACCAGA	1560
TTTAAGAGCC TTAATTTGTT TTTCAATGCT TGATCCGCCA TATACTGAAC GGACTTTGAC	1620
TCCCTTACTA CGACCAAAGC GGAAGAGTTC TTCTTGACTT TGGACAGCTA GTTCACGAGT	1680
TGGAGCGATG ACCAAGGCTT GGATAGTCGC TTCTTCTGTA CGGATTTTTT CAAGGGTAGG	1740
CAAGCCAAAG GCTGCAGTTT TTCCTGTACC AGTCTGAGCT TGACCGATAA CATCCTTGCC	1800
TTCAAGGGCC AAAGGAATAG TTTGTTCTTG GATAGGACTA GCTTCTACAA AACCAGCTTT	1860
TTCAATTTCT GCTAGCAAAT CAGCAGACAA GTTTAATTCA TTAAATTCA CGTTATTCTT	1920
CTTTCTAAAG GTGGTGCAGG GCCACCCTAT AGGGCTTAGT TTATACTTTT CTTTTTATGA	1980
CGTATTTTCA TATAACTAGA TATAAAATCG TGTGCTTCT TTTCCACAAA AGAAAAGTAC	2040
TGTTTTCTTT GCAACCTATC TAGTATAACA CAAGACCAGA GCAAAGATA GCCCATTTTC	2100
TACAGAAAAT CATGTAAGCG CTTTTTGACT TTCTTTTTTG ATTGAACGAC CTAGATAATA	2160
AGACAAAGCC AAGGCGATAC TGTATAAAAT GAGAAAAACG AACAAGGTTT GTGTGTACGA	2220

1186

ATGAGCCATT TTATAAGTCT CTGCTAATAA AATAGGTCCC GCTAAACCAG CCATTGCCCA	2280
AGCTGTTAAA ATATAACCAT GCAGAGCGGC CAATTCCCTTG GTTCCAAAAA TATCACTGAG	2340
ATAAGCTGGA ATCAAAGAAA AACCAGCTCC ATAGCAAGTC ATCAAAATAG ACATAGCAAC	2400
TACAAATAAA ACGGAATCTG TAAAGAGCCA AAGTGAGAGA GAAAAGAAAA GATTGACAAG	2460
CAGTAATATA CTAAAGGTTA GAGGGCGACC GATATAGTCA GACAAACTCG CCCAGAGCAA	2520
GCGACCAAAT CCATTGAAAA TCCCCAAAAC ACCCACCATT ACTGCTGCAT GACTTGTAGA	2580
CAAGCCAGCC ATCTCCTGTG CCATTGGCGA TGCCGCTGAA ATTAAGCCTA AACCACAAGC	2640
TATGTTGATA AAGAAAATAA TCCAAAGCAT ATAAAACCGA TTGCTTTTTA GAGCCTGATT	2700
TGCAGCCATT CCTTGCGTCA AAGAGGCTGT TTTTCTTTC CCTGAAGAAG ATAAAATTGC	2760
AAGCTCTTGC TCATTGGAC GCTTAATGAA TTGTGAAGCT AGGAGCATGA TAATAAAGTA	2820
ACTTGCTCCT AAAATATAAA AAGTTCTAC AAGCCCTACC CCTGCGATGA GGTGTTGCGC	2880
TATGGGACTA GTCAATAAAG AAGCAAAACC AAACCCATA ATCGCTAAAC CTGTTGCGAG	2940
ACCACGTTTA TCAGGAAACC ATTTTATAAT CGTCGACACA GGGGTAATAT AGCCTGCTCC	3000
CAAACCAAGC CCACCTAAAA TGCCATAAGC GAGATACAAC AACCACAGCT CTGACGGTCT	3060
ATTGCAAATC CTGTTAAGAT ATTTCCACCT GCGTATAGAA AAGCAGATAG ACTTCCCATG	3120
ACTTTCGGAC CAAATTTTTC TACCAAACGC CCCATAAATG CAGCCGATAA GCCCAAACAA	3180
AAGATTGCTA GACTAAAGGC GAAGGCAACA GAAGCCTGAT CCCATCCCGT	3230

(2) INFORMATION FOR SEQ ID NO: 204:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5096 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 204:

CCTATGAAGA CTGTCCCAAC TGGGTGTCCT TCTAGGCTAT CTGGTCCTGC CACTCCAGTC	60
AAACTAATTC CAAAATCAGA CTGGGTCTTG CTTCGTGCCT GCTCAGCCAT CTTCTGAGCT	120
GTAATTCAG ACACCACACC ATGTTCTTCC AAATCTTGG CAGGAATATC CAACATCCTT	180
GATTTTTCCT CCAAGCTATA GGTCACAAAA CCACCCTTAA ATATACTTGA AACTCCAGAA	240
AAATTCGCCA CGGTAGCTTG GAAAAGACCT GCCGTCAAAC TCTCTGCAGC CGCGATGGTT	300
TTCCCTTGCC TTTTCAGTTC TTCTACCACA ATGCTGGCTA AACTAGTTTC TTCCCATAA	360
CCATAGCAAA AGTCTCGTAA AGAAATTCCT TCGAAAGTCT GGCAGTCCAA GATTTGATT	420

1187

TCCAAGATAT CCAGCGCTTG ATTCGCCTCT TCTTGACTGC TAGCCTTTGT TGACAGACGT	480
AGAGTGACTT CTCCTGTCTT GGCATAAGGG GCCAAGGTAG GATCGATCTG ATTATCAATT	540
AAATCAGCCA AAATCGTAAC CAACTGGCTC TCGCCAATCC CAAAGAAACG AAGAACTCGG	600
GAATACAGCT TGCTCCCTGT CATCAACTTG GGTAGAAGTT GGTTTAAGAC CATGGGTTTC	660
AATTCACTTG GCGGACCTGG AAGGACGACA TAGGTCACTC CGTCTACTTC TAATTTTCCT	720
CCAACAGCCA GTCCTGTTTC GTTTGGCAGT GGAATCGCTC CTTCTACAAT TTGAGCTTGT	780
CTTTCGTTAT TCGGTGTTTC GGCATAGTCT GGTGCGAGGG TAAAAAAGAT ATCCAACCTC	840
TCCTGAGCCT GAGGATCAAA GACTAATGCT TTCCCTAAAA ATTTAGCTAG GTTTGTGTTG	900
GTTAGGTCGT CCTCAGTTGG CCCCAAACCG CCTGTCAAAA TCACCAGACT GCTACGTTGA	960
CTGGCAATCT CAAGCAAAGA CAAGAGACGA ACTTCATTGT CTCCTACAGC CGTCTGAAAA	1020
TATACATCTA CCCCAATCTC AGCTAGTTTT TCCGACAAAA ACTGGGCATT GGTGTTGACA	1080
ATCTGCCCTG TCAAAATCTC TGTTCACA GCAATGATTT CTGCTTTCAT GTTTCCTCCT	1140
ACCTATCTAT TCGTATTTTT TTGAAAAAT CGCAGGAATT TTCCTACGAT TGATTTTTTT	1200
ATTTGTATCA AAAGTTAATT ATCTTCATCA CCAACAGGTG CTCTGCCAAA TAAATCTTCA	1260
AATAAAACCG CATTTGGTTTC AAGCTGAGTA ACTTCTTCTT GTCCCAAAGA ACGTCGGAGT	1320
AGATTTTGCA TTTCCAACAT ATGTGCTCTC GAAACAATCT GGTAAGAAAC ACCTTGAAGT	1380
ATCTCTCCTT CACCCTGCAA CTGCTGAGTT TCAATGGTTT TAAATGAATC TTTATAGCCT	1440
AGCAAGTTAG GGATACTTTT TGCAGACAAA TCAATATTGG TCTGCATATT GTCACTCAAA	1500
GCTTTTAGAA TCTCTTGATA ATGACCAATG CTATTTAAAC TGAGAGCTTT TTCCATGACT	1560
TTTTGAATAA CTTACGTTG ACGTTTTTGA CGACCATAAT CCCCCTCAGG ATCTTGGTAA	1620
CGCATTCGTG CATAGACTAG GGCTTCTTCT CCCCCAATAT GTTGCTCCCC AACACCGATA	1680
GAAATAGTAT TAAATTCTTC TTGGTCACTG ATAGAAATTG GGAAACCTAG GATATTATTG	1740
ACTGTAATAC CTCCTACTGC ATCCACTAGT TTTTGCAATC CTCTCATATT GACCATCACA	1800
TAGCGATCAA TATGGATATT CATCATTTTT TGAATGGTTT CTATAGCAAG CTCTGCTCCA	1860
CCATCTGCAT ATGCTGAGTT CAGTTTCGCT TCATGAGCCT GACCATTCCC TGATTCAATG	1920
CGCGTCAGAA TATCCCGCTC TAAACTCATC ATTGTTGTTT TTTTCGTTTT AGGATTCACT	1980
GTCATCAAGA TCATGTATC ACTTCTACCG ACCCAAGTTT CAGTTCGTTT AACATTCCG	2040
GTGTCCACTC CCATTAAACG AATGGTTAGA GGTTCAGTCG CTTCAATAAC CTTGGTTTCT	2100
TCACCATT TTTTATAGGT TTTAGCTAAG GTTCTGTGCC CTTGTTGATA AATAGTATAA	2160

1188

GCAAAACAC CTACTCCTAC TACAGTTACA GAAAGTAAAG CTAGCACCAT TCCAATAATT	2220
TTTTTAACCA TATTTCTACT AACCTATCAG TTTACCCATC AAGTAAACAT CGATAAATTT	2280
CCCTTCTTCT ATATATGCCC CACGCTCTTG GCTACCTTCA ATGACAAAGC CATGCTTTTG	2340
ATAAAGATGG ACTGCTGCTT GATTACGAGT TTGGACAGTC AGTTGGAGAC GACGCAGAAT	2400
GCCACTTGCT TGTGCCCCTT CTATCGCTTC TTCTAGCAAC AAACCTCCCA AGCCATTATT	2460
CCAATATCTT TTCCAATCA CAATGAAGAG ATCTCCAATA TGACGGACTC TCTTACGCTG	2520
ATCAGCTGTA ATATTTACAA TACCAGCAAT TTTGCCATTT AAGAAATGCAA GTAAGGTTAT	2580
CTGATTGTCC GAACTAGCTT GCTTGTGAG GAATATTTCC ATCTCCTCAC TAGTCAAGAG	2640
AATACCATCT CCGTCTAGGC TGGTAAAGTC TGTCTCCAA CTCACACGAT TTAATAAGGC	2700
CACTAATTC GCTGCATCTT TGGGCTCTGC TTCCCTAATG AGCAATTCAT ACTCCATATT	2760
GAAGCTCCTC TAACAATTTT TCAGCAGCA AACCTTTGC CTGAAAATTT AAACGGCGTC	2820
CATCTGCTTC TTTTAGAATT TCCAATTCTA AATAAGCATC TGGCAAGGCA TCTCCTAAGA	2880
GATTTCCCA CTCAATAACA GTCACGCCG CACCAAGAT AAACCATCC AAGTCGATAG	2940
AATCAGCATC TCCTTCAATA CGATAACAT CTAGGTGATA AAGTGAAGT CGACCTTCAT	3000
ACTCTCTCAC GATAGTATAG GTGGGACTTT TAATCATTTG AGAAATCTGT AATCCTTTTG	3060
CAAGTCCTTT AGTAAAGGTC GTTTTACCTG CACCCAGTTC TCCAGTTAAG ATTAATAACAT	3120
CATTCTTTGC TAATAGATGG CCCAAACGCT CCCCTAAGGC TTGCAACTCT TCTTCATTTT	3180
TTGTGTACAT ACTCTTATTA TACCAAAAAC TTTCTTTTG TGTCTATTTT CCTACTAAAC	3240
TTATCATCAT AACATCCATA AAAACAGGC TTTCTCTAAA AGAAATGAG CGTAACAATG	3300
ACCAATACAA GATCTCGGAA AATATGACCA TAAAGGAAA CTCCTTCTT AACCGAATTT	3360
GGGACAAGAT AGGCTGCAAA AAACAAGCCC AGTCCAATAT AAATCAGAAG TGAGACAATG	3420
GTCATTGGAT TTCTTAAGAA AAGAAGTGT GCTAAAATAG TCACCAACAC TGTCTTTTTT	3480
CTGTCCAGCA TAGCAAGAAA ATCGCGCACG TATTTTTC AAGGTAAAAA AATCAGCAA	3540
TCTAGCCCAA ATAGGAAAAA GAAGGATGGC AATAAAAAGT CAACTAATTC TTGCTGCAGC	3600
GTATTTTGA TGAACAAGTT ATCTGACAAA ACAAGAACAG CTCCTAACAA ATTAATTAAG	3660
AGTAACATAC TGTAATAAAG CTTACCGAC TTCTTACTGG CTAGGACACT ATGGACTTCT	3720
TGCTTACGGG TATAAAGATA ATTTACTCCA GCACAGATTC CTGAAACGAA AACCATGCTT	3780
CCGATGAAAA AAGCTGTACT TTGTTTAAAG GACAAGATGC ATTCCTTCCA TAGGAAACAG	3840
CTACTCAAAC TGATTTGAAT TAAAGCTAAC AAAAATAAGA TTCTCATGA TTTCATCTTC	3900
TCTCTCCCTT CCTACCAATC ATTATACTAG GAGAAAAGAG AGAACTGTTT CTAATCTTCT	3960

1189

CAATGTCTC TTTAAGACGC TAAACAAACA CTAGAGACTA ATACTCAATG AAAATCAAAG	4020
ATCAAAC TAG GTAGCTAGCC ACAGGTTGCT CAAAACAGTG TTTTGAGATT GCAGATAGAG	4080
CTGACGTGAT TTGAAGAGAT TTTCGAAGAA TATAAAATTG AAATCATGAA AATCCGTCAA	4140
ACGGGTGGTT GTTTTGTCTC GCACCTCACG GAGCGAGACG GACTCAGAGT CACATAATTA	4200
TAAGGCTGAT AGTATTAATC TAACTATCAG CcTmCAGGTT ATTTAACGTT TCAGAAAAAC	4260
TATAATGTCA AGATTAAC TAACAGTATCT AGTTCCTTCA AATAATTTTC TATCTTCATC	4320
AACATTAAAG GATTGTTATA AATCTTACAT AACTCTCTTG CTTCTATATA ATAATTTTGT	4380
ACTTGTCTC TGTCTAGAAA TTTGGCTCCA GCATTTCTTA CAAGAATAAG TAGAGGAGCC	4440
AATTGGTAGC TTGTCTGTCT TTGTTTACAG AGTTCAATCG TTTCAAGAGC TTCTTGATG	4500
GCTTCATTAT ATTTTTCCTT TGATACTAGG TAGTGAGCGT AGTTGTAACG AACTCTGATG	4560
TAGCCAAATA AAAACTCTTG ATGGTCCAAA TTTTGTCTCT GATACAACTC TATTAAATGA	4620
GAGTAGTTTG CCTCATATTC TTGTTACGA CCCACTAAGG AATAGAAATT AGATAGAGTA	4680
TTCAACGCCT TTAAATAAAT CAGAGTATTT GAAGAGACTT TTAATAATAT ATTTTCCAAT	4740
GACGAATTG CCTCACACTT ACTGTCATAT TGATAGAAGT CAATTATAGA TTTAATCCAT	4800
TCAAGGTAAG TTCGGTCTTC TAATGTTAGA AAAGTGCTTC GTTCTACTTC TATTTTATAA	4860
AGATATTTCTA AATCGTCATA ATTTCTGTCA TCTAATAGGC GAGCAGATAG ATGTTTGAAA	4920
TTAGAGAGGT TAGACTTAAC TTCGATTTGT TCATTGAAA AGTAATCCAA AGGGAATTCA	4980
AGTCGTTGAG AGAGTTTGAA TAACAAGTCT GCGGAGGGAA TAAATGACC TCTTTCAAT	5040
TTACTAATCT GGCTTGTTC ACAAATTCCT TCTGCAAGAG TTTGTTGGGA GAGTCT	5096

(2) INFORMATION FOR SEQ ID NO: 205:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2395 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 205:

ACAAGATAAA AATAAAGGAT TACAATGGGG AATATAAAGT AAACCGGTAA ACCTAAAAAG	60
AAAGGAGAAA AGATGAAAAT TGTACTTGTA GGGCATGGAC ATTTTGCTAC AGGGATTTAT	120
AGTTCCTTAC AATTGATTGC AGGTAATCAA GAAATGTGG AGGCGATTGA CTTTGTGGAA	180
GGAATGTCAG CAGATGAAC TAAGCAAAAA ATCTTACTTG CAATTTCAAA TGAAGAAGAA	240

1190

GTTTTAATCC TAAGTGATCT CTTGGGAGGA TCGCCATTCA AGGTTTCTTC TACCATAATG	300
GGAGAAAATC CAGCCAAGAC AATGAATGTT CTCTCGGGTT TGAACCTAGC CATGTTAATG	360
GAAGCAGTCT TTGCTAGAAT GGCTCATAGC TTTGATGAGG TTGTTAATAA ATCAGTAGTG	420
GCGGCCCAGG GCGGAGTCGT AAATGGTAAA GAATTGTTT CAACGGATGC AGAGGAAGAG	480
GAAGAAGATT TCGAATCGGG TATTTAAAGG GTAAAAGAAT GATAAAAAAG GTTACGATTG	540
AAAAATATAA ATCGCCTGAG CGCTTCTTAG AAGTACCACT TCTGACGAAA GAAGAAGTCG	600
GCCAGGCAAT CGATAAGGTT ATTCGGCAGT TAGAACTCAA CCTTGACTAT TTCAAGGAAG	660
ATTTCCCGAC GCCAGCTACC TTTGATAATG TCTATCCAAT CATGGATAAC ACGGAATGGA	720
CCAATGGTTT CTGGACAGGA GAACTGTGGT TGGCTTATGA ATACAGTCAA CAGGATGCAT	780
TTAAAAACAT CGCTCATAAA AATGTTCTTT CTTTCTGGA TCGTGTCAAT AAGAGAGTAG	840
AATTGGATCA CCAATGATCTC GGCTTCTTGT ACACACCGTC TTGTATGGCT GAATATAAGA	900
TAAATGGAGA TGGAGAGGCT AGAGAAGCAA CCTTGAAAGC TGCAGATAAG TTGATTGAAC	960
GCTATCAAGA AAAAGGTGGT TTTATTCAAG CTTGGGGAGA CTTGGGCAAG AAAGAGCATT	1020
ACCGTTTGAT TATCGACTGC TTGCTCAATA TCCAACCTCT ATTCTTTGCT TATCAAGAAA	1080
CAGGCGATCA AAAATACTAC GATATTGCAG AAAGCCATTT CTATGCTTCA GCTAATAATG	1140
TAATCCGTGA TGACGCTTCG TCCTTCCACA CCTTCTATTT TGATCCTGAG ACAGGTCAAC	1200
CCTTTAAAGG TGTAACGAGA CAAGGGTATA GTGATGATTC ATGCTGGGCA CGTGGTCAAT	1260
CATGGGGAGT CTATGGTATT CCTTTGACTT ATCGTCACTT AAAAGACGAG tCCTGCTTTG	1320
ACTTGTTTAA GGGTGTGACC AATTATTTCT TGAATCGTCT GCCAAAAGAT CATGTGTCTT	1380
ATTGGGATTT GATTTTTAAT GATGGTAGTG ATCAATCACG AGATTCTTCA GCAACAGCTA	1440
TCGCCGTCTG TGGGATTCAAT GAAATGCTAA AACATCTCCC AGAGGTGGAT GCTGACAAAG	1500
ATATTTATAA ACATGCTATG CATGCCATGC TTCGTTCCCT GATCGAACAT TATGCAAATG	1560
ATCAATTTAC CCCTGGTGGG ACAAGTCTCC TCCACGGTGT GTACTCATGG CATTACAGGTA	1620
AAGGAGTGGA TGAAGGCAAT ATCTGGGGTG ACTACTATTA CCTAGAAGCC CTTATCCGTT	1680
TCTACAAAGA CTGGAACCTA TATTGGTAGG AGGAGAAATA TGACAATGCC AAATATTATT	1740
ATGACCCGTA TCGATGAACG GTTGATTCAAT GGACAAGGAC AACTTTGGGT AAAATACCTA	1800
GGTTGTAATA CGGTCATTGT TGCCAATGAC GAAGTAAGCA CGGACAAGAT GCAACAACT	1860
CTGATGAAAA CAGTTGTGCC AGACTCAGTT GCCATGCGTT TCTTCCCTTT GCAAAGGTG	1920
ATTGATATCA TTCACAAGGC TAATCCTGCT CAAACGATCT TTATCGTTGT AAAGGATGTG	1980
AAGGACGCTT TAACCTTGGT AGAAGGTGGT GTCATATCA AAGAAATCAA TATTGGGAAC	2040

1191

ATTCACAATG CCCCTGGTAA AGAGCAAGTG ACACGCTCCA TCTTCCTGGG TGAAGAGGAC	2100
AAGGCGGCCC TCAAGGAATT GAGCCAACT CATCAAGTAA CATTTAATAC GAAAACAACT	2160
CCAACAGGAA ATGATGGAGC TGTTCAGTC AACATTATGG ACTATATTTA ACAGAGGAGA	2220
TCGTTATGTC GATTAATGTA TTTCAAGCGA TTTTAATTGG ATTATGGACA GCTTCTGT	2280
TTAGTGGAAT GCTGTTAGGA ATTTACACCA ATAGATGTAT TGTTCTGTCA TTTGGTGTG	2340
GAATTATTCT AGGTGATCTG TCATGCTCTT GCAATGGGAG CCAATGGTGA ATTGG	2395

(2) INFORMATION FOR SEQ ID NO: 206:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3342 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 206:

CCTTCTTTAG AGGTTAATTT TGCAAAATCG TCGATTGTTA TATAAGGATT ATTATAGAGA	60
CTGTTCGCAA AGAATCTCTG ATATGTTTTT GAATCTTTTG AATACAAAAC TATCTCTCTA	120
ATAGCATTGC CATCTGTTCC ATCAATTGGT AAACATACCG TAACTAGAAA AAGAATTATA	180
TTCAAAATAA AAAATTCTGA TGCGTACGGC ACAAATCCCA AAAGTGCTAA TATTGCGACA	240
ATTAGGTTAG CTCCACCTCC CCCAAAGAAG TAGAACACCA AATTCCTATC ACTATTTTTT	300
TCATTAGTAA TGTTTCTATT ACTCATTTGA CAATAACCGA ATGCTAATAA CACTGGAAAT	360
TTGAAATATA TTTTMTTCT GAAATAGAAG AAAAAGGGAG TAGCAAGCAT CTCTAGTTTA	420
TAAGATAAAC ATCTPCCAC TAAAAAATGA CCTAGTTCAT GTAATGTAAT TGATATTAAAC	480
GAAATTAAAA TCAATCGAAA ATAATAGATT AATGAATCAT TTGGAAAAAT TATCAATAAT	540
AGGAACAATA ACGGAATCAA ACATAAATAT ATGACAGAGT TATTTAATAT TTTCAACATA	600
ATACCATTCC TCTAACTAT TAGCTTCAA AAGGCGTTTT TTCTCCCAAT ACATCTTCTC	660
AAAATGTTTC GAATCATAAT TTTCTAAAAT TAATTTTATG TCTGGTAAGC TCTTCTTGA	720
TAATCCGTTG TTTTGTACTT AATTTTCCCT TCAAGTACAT CTTCAATTTT ATAAGTTGCC	780
TCCATCAACT GAGCCTCTGC AATATCTTTG AGTGAATTGG TAATTGAAAC TTGGTGTAAAT	840
ATCTGTCTCT CCATATATGA AAATATATCT CTAAGATATT CTGACACATT ATCAGAGCCG	900
TTACTCTCAG CAACATCTAA TGTTACAACA AACTTTCCAG CTAATCGAAA AAGATGGCTC	960
CACCCCCCAA TCCTTTCAAT AAAGTTTTTT GTGTCCACAG ATACGTTTTG TAAATATACA	1020

1192

GGAGAAGAGA TAATTATAAT ATCAGACTCT AATAACTCTT TTTTATAAC ACCTCCATCA	1080
TCAGCATTAC TTTGCCTATC AATTCCTTTC TTAAACAACCT CTTCTGAATC AGAATTAGAT	1140
ATTTCTAGCT CTGAATTGAA AGGTGTCCTG AAAGATATAT CAACATTATT TCTACTAGAA	1200
ATGATACTTG AAAGTCTCTT AGTATACTCT AAAGTCTTAG AGTTATGATT TCGCACTCCT	1260
GCATATATAA ATATTTTATT CATTTTAATT CATCCTCTCA ATTTGAATTT AGTAGATTTT	1320
TCAAGATAGT ATGGTACAAA AACAGACTTT TGTGACTCA CATTATTACA TATGTTTTGT	1380
ATTAAACCAA AATCAATACT ATTTTGGAG TAATTTTGAT TTTAGTTTAA AATCATTTCT	1440
ATAACAGTAG CATATACCTC AAGCCGTTTA GCAATTAGAA TAGAACTTTT CTTTATTATA	1500
TTATTATCTC AACGAAAAGC TACACTATTA AAAATATTTT ATAGAATTAC ATATTAAACT	1560
AGTCAATCTT GGTATTTTAA TATTGCTTAA TGAGTGGACA CCTCTATTTT AGAAACAAA	1620
CTATAAATTA AGCTAGATTT CAAGTAATGA GGGGATAACT ATCTTTTGT CATTCTGATT	1680
CAGTGCGATA TACCTTAAAA AAGTATAAGC AATACCAGTC ACACCTGTAT ACAAAGAAAA	1740
ATCTGGGAAA TTGCTTGTTT GGACGATACG ATACTCTCCT TCTTTTGATT TATTCATTAC	1800
AACACTACAC AATAAGACT CCAATTCAT ACTAGTATCC ATTTCTTTCA TGTAGTCGAT	1860
GTAAAAATTT ATTATGGCCA TACTTCCATG GCAAAATGTA TCATTATCTA AACTAGCTAC	1920
AATTCCTCTT GGAACACTTT GGGGATGATT AACTAATGTC CCAAATTCCT CACTACACCA	1980
CTTCAAAGAA TGAATTTTGA TTTTCTCCCT AGGAACTAGT TGTAATAATTA ATTCTTTATA	2040
TTTTTTAAGT CTTGTCACTT TATAAATATT TTTTAATGTA AAAATTACAC CTGATAGTCC	2100
ATGGCCAAAA CTATATCCAA AATTACTATT ATCTCTCTCG CTTACATCAT TATATAGCGT	2160
ATCACCTAAA CTTAATACTA GCCTTAGAAC ACGTTCCTTC TCTATTCCTC TCCTATAATA	2220
TCTTACCAGT GTATTAAATTA AAGGTAGAAG ACCATTAATA TAGTCAGACT TGTTTGAAAC	2280
ACTTGCAAAA TCAGTCTTTT CAAGCTCAGT TAAAACACTC TTTATATAAT TTAAGCATGC	2340
GAGAGTATTT GTATCGTAAT CCTCTATAAT GGATAGAACA ATGAAATATC CTATATCCCC	2400
AGTTAAACCA AATGTGGTCT TAGATAAAGA AACAGATGGC GGAATTGCAG ATAACATTTT	2460
ATTGTACAGT TGAGTATATG ATGATTTATC TTTCAATAAT TTTACATAGT ACATAAACAG	2520
TAATATTCCA GCTCTACCCC TATACATATC ATTTCCCCTT TGTTCAAGAC ACCATTTAGA	2580
ACCTTTAAAA TTAACAGGTA TACTCCAAAT TGGATATTCG TCATAAATAT TATTAATAAC	2640
CAAAGAGTCT GCAATATTTT CTACTTCATT ATGCAGAATA GTAACATAAC TTTCATTTGG	2700
GAGTTTTTTT CTATTAGATA AGTTTAATTT ATATCCTTTT TTTGCTGAT CAAAGCTTGG	2760
AAAATAAATT TCAATGATAT CAAGTGGCTT TTCTAAATTT TCCAAATAT TATTAGGTAA	2820

1193

ATATTTTCATA AAATAGTCAT ATCCAGAAAA TTGATGTAGG GAAATAAAAT GATTTCCAAA	2880
ATCATCGTAG ATTTTCATTGA TATTTGTATC TGTATAAAAA ATCGGAATAT CTAATAACCT	2940
CATTTGTTC AATTCGCTTG CTACAATACC TTGATTAGAA AACTTATTGC TCCAGAGATT	3000
TTCCAATGCT TTTTCTCTAT CTAACATTTT TCATAAAAA TCAGGATGAT ATAAAAAGA	3060
TAGTACTGAA GCATAGCTAT TTGTGTCTCT AAAAAGTACC CTGTCTTTA AACCATACAA	3120
GTTTGCTTTT AATAGCATTT TAAATCTTC TGTTTTATTT AACTCTTCAA ATATCAGATA	3180
AAAATCCCTA AAACCTTTTT TGAATCTTT TATATACTTA TCAAATCTA TATCACCATC	3240
CCGAACAGGC AGGTTTTTCC CACCTTCAA ATCAATTTT CCAATATCAA ACTTTACCTT	3300
ATCAGTATTT AAATTAATTA AAACCTGACC AGGGATCCTC TA	3342

(2) INFORMATION FOR SEQ ID NO: 207:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3454 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 207:

GAGAAAAGAA TGTTAAAGAA AAATGATATT GTAGAAGTTG AAATTGTTGA TTTGACCCAT	60
GAAGGGCAG GAGTTGCCAA GGTAGATGGT TTGGTCTTTT TTGTAGAGAA TGCTTTACCG	120
AGTGAAAAA TTCTCATGCG TGTCCTCAAG GTCAATAAAA AGATTGGCTT TGGAAAAGTT	180
GAAAAATACC TTGTCCAGTC ACCACACCGT AATCAAGATC TAGATTGGC TTACCTGCGT	240
TCAGGAATCG CGGATTTAGG ACACCTTTCT TATCCAGAAC AGCTCAAGTT TAAAACCAAG	300
CAAGTCAAGG ACAGTCTCTA CAAGATTGCT GGAATGCGAG ATGTAGAAGT TGCTGAAACG	360
CTTGGTATGG AACATCCAGT CAAGTATCGC AATAAGGCGC AGGTGCCCCG TCGTCGAGTG	420
AATGGTGTCT TGGAAACAGG ATTTTCCCGT AAGAATTCGC ATAACCTCAT GCCCCTTGAA	480
GATTTCTTTA TCCAGGATCC TGTCATTGAC CAAGTCGTAG TAGCTCTTCG AGACCTGCTC	540
CGTCGTTTTG ATTTAAAACC TTATGACGAA AAGGAACAGT CTGGATTGAT TCGGAATCTT	600
GTGGTGCCTC GTGGTCACTA TTCAGGACAA ATCATGGTCG TTTTGGTGAC AACTCGTCCA	660
AAAGTTTTTC GTGTTGACCA ATTGATTGAA CAAGTTATCA AGCAGTTCCC AGAGATTGTG	720
TCTGTCATGC AAAATATCAA CGACCAGAAT ACCAATGCGA TTTTGGGTAA GGAGTGGCGC	780
ACTCTTTATG GTCAAGACTA TATTACGGAC CAGATGTTGG GAAATGACTT CCAAATCGCT	840

1194

GGCCAGCCT TTTACCAAGT CAATACTGAA ATGGCGGAGA AACTCTATCA AACAGCCATT	900
GACTTTGCAG AGTTAAAAAA AGATGATGTG ATTATTGATG CCTATTCTGG TATTGGAACC	960
ATTGGTTTAT CAGTCGCCAA GCATGTCAAA GAAGTCTACG GTGTTGAACT GATTCCAGAA	1020
GCAGTAGAGA ATAGCCAGAA GAATGCTTCT TTGAACAAGA TACTAATGC CCACTATGTC	1080
TGTGACACGG CTGAAAATGC CATGAAGAAA TGGCTCAAGG AAGGTATTCA ACCAACCATT	1140
ATCTTGGTTG ATCCTCCACG CAAGGGCTTG ACAGAAAGCT TTATCAAAGC AAGCGCCCAA	1200
ACAGGAGCCG ATCGCATCGC CTATATCTCC TGCAATGTCG CAACCATGGC GCGTGATATT	1260
AACTATACC AAGAGTTGGG ATATGAATTG AAGAAAGTCC AGCCGGTGA TCTATTTCCT	1320
CAAACGCATC ACGTCGAGAC GGTAGCACTT TTGTCCAAAC TCGATGTCGA TAAGCACATA	1380
AGTGTGAAA TTGAGCTGGA TGAGATGGAT TTGACAAAGT CCGAGAGCAA AGCAACATAT	1440
GCTCAATCA AAGAATATGT TTGAATAAAA TTTGAATTAA AAGTTTCGAC ATTATATATT	1500
GCACAGATAA AAAAGAAATG TGAATAGAA TTACGAGAAC ATTACAACAA GTCTAAAAAG	1560
GATAAACAAA TTATTCCACA GTGTACACCT GAAAAAGAAG AAGCCATCAT GGATGCTTTG	1620
AGACACTTCA AATGATTTA ATAGAAAAGA ATGACACTAT ATGACTTCT GCATTTATTA	1680
CATTCCTACT TGGTATAGGA ACAGCTATTA TTCCTTCTT GCAAGGTATC AATTAGAAA	1740
TAGGCTCAAT ATAAAGATTG ATAGGATCAT TTTTATATTT AAAGGAGCGT TGAATGATT	1800
GATAAAGCA ACAAAAAATT TTAGGATAAA TTTGCTAAGT TGTATGCCTC TTTTATGAA	1860
AAAGATAAAG AGGTTTATGA TAAAGTTTGT GAATATCTTA GTCCTCATTT GAATAAAGAT	1920
ATGGAGGTGC TTGAACTTGC TTGTTGGTTT CGTGTCATAA CAGTTATAGA GGCAAAAGT	1980
TATGTAAATA TAAGGAGTTC AAGACTTCTA CCAAAGTTTA AACTCAAAA AATAAATAGT	2040
TGGTGTGCTG CTTACAATAT CCATTTTAAT AATGGATATT GTAAGCAGCA CCCCcAtGAA	2100
TTTAAAGATT CTTTAAAGAG TCTTATTTTG TGATGAAAAT TTAATATGTA AATCTCAGAC	2160
GATAGAAATT AAAAActCTA TCGTCTTTTT TATACTCAA ATTAGGAGGT AAAAATGGTA	2220
AGGATAAGAG GTCCCACTTA AAACAATTTA TGGCAAAATA AGGACGGAAT AACACAACAA	2280
ATTCTCTAAA ACAATCACT AAATCAATGT AAGATTGAAT GAAATCAATA TTTATGCTAT	2340
AATTAAATAA ATTTAATGAA GAAAAAAGA GGGATATTAT GGCACTTAAC TATAAACCAT	2400
TATGGATACA GTTAGCAAAA AAAGGACTAA AGAAAACAGA TGTAATAGCT ATGGCAGGAC	2460
TTACAACAAA TGTATGGCA CAAATGGGAA AGGATAAACC AATTACATTT AAGAATTTAG	2520
AAAGAATATG TAAGGCTTTA TCTTGCACTC CTAATGATAT TATTAGTTTT GAAGATAATT	2580
TTAGTGACGA GGAATAGAAA ATGACTTTAA GGACAGAAGA TCAAGTTAGG GATTATGCAA	2640

1195

GAGAAGTATA GGCTTTAATG AAGTTGAAGA AAACATCAAT CAAGGTACTG GTCAAATAAC	2700
TACTTTTAAT CAATTAGGCT TCAAGGGATA TTCAAATAAG CCAGATGGTT GGTATTTACC	2760
TAAAAATATG AATGATGTAG CAATAATCCT TGAACAAAA TCAGAAGAAA GAGATATTAG	2820
CAACAAATT TTTATTGATG AGTTAATGAA AAATATAGAC ATAATTTAAC TAAAAATAA	2880
AACTAGATCC TTTTTGAAA AAATTATATT ATTAAATTG TAACTGTATC TATTGACAAT	2940
GATAATTATT ATCGATACAA TAGACTTGAA ATATGTTTAA GGAGTTTTTA TGAaaaCAAA	3000
TTTTTTCTAA TmGCTATTTT AGCTATGTGT ATAGTTTTTA GCGCTGTTC TTCTAATTCT	3060
GTTAAAAATG AAGAAAATAC TTCTAAAGAG CATGCGCTG ATAAAAAGT TTTAGATCAT	3120
GCTTTCGCTC AACTATATT AGATAAAAA CCTGAAAGAG TTGCAACTAT TGCTTGGGGA	3180
AATCATGATG TAGCATTAGC TTTAGGAATA GTTCCTGTTG GATTTTCAA AGCAAATTAC	3240
GGTGTAAGTG CTGATAAAG AGTTTTACCA TGGACAGAAG AAAAAATCAA AGAACTAAAT	3300
GGTAAAGCTA ACCTATTGA CGATTTGGAT GGACTTAACT TTGAAGCAAT ATCAAATTCT	3360
AAACCAGATG TTATCTTAGC AGGTTATTCT GGTATAACTA AAGAAGATTA TGACACTCTA	3420
TCAAAAATTG CTCCTGTAGC AGCATACAA TCTG	3454

(2) INFORMATION FOR SEQ ID NO: 208:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3752 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 208:

CGGGAGTATA CTTAATATAA TTATAGTCTA AAAATGACTA TCAGAAAAGA GGTAAATTTA	60
GATGAATAAG AAAAAATGA TTTTAACAAG TCTAGCCAGC GTCGCTATCT TAGGGGCTGG	120
TTTGTACG TCTCAGCCTA CTTTGTAAAG AGCAGAAGAA TCTCCACAAG TTGTCGAAAA	180
ATCTTCATTA GAGAAGAAAT ATGAGGAAGC AAAAGCAAAA GCTGATACTG CCAAGAAAGA	240
TTACGAAACG GCTAAAAAGA AAGCAGAAGA CGCTCAGAAA AAGTATGAAG ATGATCAGAA	300
GAGAACTGAG GAGAAAGCTC GAAAAGAAGC AGAAGCATCT CAAAAATTGA ATGATGTGGC	360
GCTTGTGTT CAAATGCAT ATAAAGAGTA CCGAGAAGTT CAAATCAAC GTAGTAAATA	420
TAAATCTGAC GCTGAATATC AGAAAAATT AACAGAGGTC GACTCTAAAA TAGAGAAGGC	480
TAGGAAAGAG CAACAGGACT TGCAAAATAA ATTTAATGAA GTAAGAGCAG TTGTAGTTCC	540

1196

TGAACCAAT GCGTTGGCTG AGACTAAGAA AAAAGCAGAA GAAGCTAAAG CAGAAGAAAA	600
AGTAGCTAAG AGAAAAATATG ATTATGCAAC TCTAAAGGTA GCACTAGCGA AGAAAGAAGT	660
AGAGGCTAAG GAACTTGAAA TTGAAAACT TCAATATGAA ATTTCTACTT TGAACAAGA	720
AGTTGCTACT GCTCAACATC AAGTAGATAA TTGAAAAAA CTTCTTGCTG GTGCGGATCC	780
TGATGATGGC ACAGAAGTTA TAGAAGCTAA ATTAAAAAA GGAGAAGCTG AGCTAAACGC	840
TAAACAAGCT GAGTTAGCAA AAAACAAAC AGAACTTGAA AAACCTCTTG ACAGCCTTGA	900
TCCTGAAGGT AAGACTCAGG ATGAATTAGA TAAAGAAGCA GAAGAAGCTG AGTTGGATAA	960
AAAAGCTGAT GAACTTCAAA ATAAAGTTGC TGATTTAGAA AAAGAAATTA GTAACCTTGA	1020
AATATTACTT GGAGGGGCTG ATCCTGAAGA TGATACTGCT GCTCTTCAAA ATAAATTAGC	1080
TGCTAAAAAA GCTGAGTTAG CAAAAAACA AACAGAAGCTT GAAAACTTC TTGACAGCCT	1140
TGATCCTGAA GGTAAAGCTC AGGATGAATT AGATAAGAA GCAGAAGAAG CTGAGTTGGA	1200
TAAAAAAGCT GATGAAGTTC AAAATAAAGT TGCTGATTTA GAAAAAGAA TTAGTAACCT	1260
TGAAATATTA CTTGGAGGGG CTGATTCTGA AGATGATACT GCTGCTCTTC AAAATAAATT	1320
AGCTACTAAA AAAGCTGAAT TGGAAAAAC TCAAAAAGAA TTAGATGCAG CTCTTAATGA	1380
GTTAGGCCCT GATGGAGATG AAGAAGAAAC TCCAGCGCCG GCTCCTCAAC CAGAGCAACC	1440
AGCTCCTGCA CCAAAACCAG AGCAACCAGC TCCAGCTCCA AAACCAGAGC AACCAGCTCC	1500
TGCACCAAAA CCAGAGCAAC CAGCTCCAGC TCCAAAACCA GAGCAACCAG CTCCAGCTCC	1560
AAAACCAGAG CAACCAGCTA AGCCGGAGAA ACCAGCTGAA GAGCCTACTC AACCAGAAAA	1620
ACCAGCCACT CCAAAAACAG GCTGGAAACA AGAAAACGGT ATGTGGTATT TCTACAATAC	1680
TGATGGTTCA ATGGCAATAG GTTGGCTCCA AAACAACGGT TCATGGTACT ACCTAAACGC	1740
TAACGGCGCT ATGGCAACAG GTTGGGTGAA AGATGGAGAT ACCTGGTACT ATCTTGAAGC	1800
ATCAGGTGCT ATGAAAGCAA GCCAATGGTT CAAAGTATCA GATAAATGGT ACTATGTCAA	1860
CAGCAATGGC GCTATGGCGA CAGGCTGGCT CCAATACAAT GGCTCATGGT ACTACCTCAA	1920
CGCTAATGGT GATATGGCGA CAGGATGGCT CCAATACAAC GGTTTCATGGT ATTACCTCAA	1980
CGCTAATGGT GATATGGCGA CAGGATGGCT TAAAGTCAAC GGTTTCATGGT ACTACCTAAA	2040
CGCTAACGGT GCTATGGCTA CAGGTTGGGC TAAAGTCAAC GGTTTCATGGT ACTACCTAAA	2100
CGCTAACGGT TCAATGGCAA CAGGTTGGGT GAAAGATGGA GATACCTGGT ACTATCTTGA	2160
AGCATCAGGT GCTATGAAAG CAAGCCAATG GTTCAAAGTA TCAGATAAAT GGTACTATGT	2220
CAATGGCTTA GGTGCCCTTG CAGTCAACAC AACTGTAGAT GGCTATAAAG TCAATGCCAA	2280
TGGTGAATGG GTTTAAGCCG ATTAAATTAA ATCATGTTAA GAACATTTGA CATTTTAATT	2340

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TTGAAACAAA GATAAGGTC GATTGAATAG ATTTATGTTT GTATTCTTTA GGTACCTATC	2400
TTATGATTTT AGGAAATGTC ATTAACAAAA CGACTCATTT TCTCTAACCT GAAAAATAGA	2460
TTAGAGAAAA TGGGTGTTT TATCTATTAT AGTTATTTGA ATGAAGmTAA GAAGAAGGTA	2520
TACTCACATC ATTCACATAA TCTGTATATT GACTATAAGT TTTAAAAAAC AATTTTTAAG	2580
CTCTTCCTTG TCTTCTCTAA CCAAGCGTGT TATAATGAAT ACTGCTCAAG CGACCTTCAA	2640
TCGTGAAGCA CACACGACCT TCAATCGTGA ATAAACGAAT AGATGGGAGA CTTACCATGA	2700
GTGATAACTC TAAACACGT GTTGTCGTGG GGATGAGTGG TGGTGTGAT TCGTCGGTGA	2760
CGGCTCTTTT GCTCAAGGAG CAGGGCTACG ATGTGATCGG TATCTTCATG AAGAACTGGG	2820
ATGACACAGA TGAAAACGGC GTCTGTACGG CGACCGAAGA TTACAAGGAT GTGGTTGCCG	2880
TGGCAGACCA GATTGGCATT CCCTACTACT CTGTCAATTT TGAAAAAGAG TACTGGGACC	2940
GCGTTTTTGA GTATTTCTTA GCGGAATACC GTGCAGGGCG CACGCCAAAT CCGGACGTTA	3000
TGTGCAACAA GGAATCAAG TTCAAGGCCT TTTTGGACTA TGCCATAACC TTGGGGCAG	3060
ACTATGTAGC GACTGGGCAT TATGCTCGAG TGGCGCGTGA TGAGGATGGT ACCGTTTACA	3120
TGCTTCGTGG CGTGGACAAT GGCAAGGATC AGACCTATTT CCTCAGCCAA CTTTCGCAAG	3180
AACAACTTCA AAAAACCATG TTCCCACTAG GACATTGGA AAAGCCTGAA GTACGCAGAC	3240
TAGCAGAAGA AGCAGGCCTT TCGACTGCTA AGAAGAAACA CTCGACAGGG ATTTGCTTTA	3300
TCGGAGAAAA GAACTTTAAA AACTTTCTCA GCAACTACCT GCCAGCTCAG CCTGGTCGCA	3360
TGATGACTGT GGATGGTCGC GATATGGGCG AGCATGCAGG TCTTATGTAC TATACAATCG	3420
GTCAGCGTGG CGGACTCGGT ATCGGTGGGC AACACGGCGG TGACAAATGCC CCTTGGTTCG	3480
TTGTTCGAAA AGATCTAAGC AAGAATATTC TCTATGTAGG ACAAGGATTC TACCATGATT	3540
CGCTCATGTC AACTAGCCTA GAAGCCAGTC AAGTCCACTT TACTCGTGAA ATGCCAGAAG	3600
AGTTTACGCT AGAATGTACG GCTAAATTCC GTTACCGTCA GCCTGACTCT AAGGTGACCG	3660
TTCATGTCAA AGGAGAAAAG ACAGAGGTCA TCTTTGCGGA ACCACAACGC GCGATTACAC	3720
CAGGACAGGC AGTTGTCTTT TACGATGGCG GG	3752

(2) INFORMATION FOR SEQ ID NO: 209:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3580 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 209:

TATTTATATT TTTTATCTC TGGCATACTT TGATACCTTT TTAGACTTAA AGTCTTTAAT	60
AGTGCCTTTC CACCTCTTTT TATCTATAAA GATTCTCCTA CATCATAATT CATTTTTTTA	120
TTTAAACCTT TCTGTCTTAG TTTGTCTTTA TCTTCTTCAT ACCATTTTAA GATTGTCACA	180
TAGTGGTTTT GATAGGTCTT ACCACTGCTT TCCATGTATC TGGATAGTTT ATTTATCATT	240
ATATCTGTGT GTGAGTTTAA TTTTCTTTT AGATTTTAT ATCTTCTTTT GCTTAACCTT	300
ACATTTTGA ATTCTCCATA AAAAATGGGG GTGGACTTTT TATCTATCTC TCCCTCTCTC	360
TCTTTATCTA TCTCTATATC TTTCCATGTA ATTCCAATCT GGAGTACCTC TACTGTCTAT	420
CGGTAATTTA ATTTTGATAT CTGGCAATAC TGTGCTAGAT ATTTGATCTT TATATTCAGT	480
ATTTTAAAA GCTTGCTTAA TAATTGAAGT TAAATAGAAT GCTACTTCTT TATTCAATTC	540
TTTATTTTTT AATTTTAAAC AATGAATTTT CATATCTAGG CTGCTTTTAT ATTTATGATA	600
AAAGACTGCT CCTAAAAATG AAACAGATAT AAAATTTTCA AAAACTCTAT AATTTTATC	660
ATCTATATCT TCGTAGTAAC CTAAGATACC ATGTCAATA TTTGTAGCAC TAATCTAGG	720
AGTTTTTCCA TCGAGTAAAT ATCTTTTGG AATAGATGAG CCTGTTGGTA CTTAACTCGA	780
TTTCCCTTTT TTTCGGTAA TAAATATTTT TTTTATTTT GTTGTCTGAT ATTTTCCCTA	840
CCTGTCCTTT GTAGGATGAG TATTTTCTAG ATTTTCYTGA ATAACTTTTT ACTTGAAGTT	900
TTAGCTTTTG AACTAGTCGT TGTACTTTCT TTTTGTATAT TATCAGTCCT GATCTTTTTA	960
ATATTGCTGT TATTCTCTAT ATCCTATTTT TCATTCATGA TATTCITTTA CTAATTTTAT	1020
CTTAAATCTT GTGCTGTATT TGCCATTAAA AAAGTACCT CCTTTAGTTA GTTTTTTGGC	1080
CTAACTTTTG AGGGTCAGTT CAAAATTTGC GACTTTTAAA TGAATTCCAA TATTCAATTA	1140
TTAAGAGTTA ACATGGTGCT TGCCAATAGG AATCATTAGA GGCGAATTGG AAATAGGGTC	1200
ACGTATAATT TTTGCTTCAA GATTAAAGAT ATCTTTAACT AGTTTATCAT TTAGTATATC	1260
TTCAGGCTTT CCTCTGCAA CAAGTTTACC TTCTTTAATT GCAAATAGGT AATCAGCGTA	1320
TCTTGCTGTT AGATTTATAT CGTGCAAAAT CATGCAAAAT GTTGTCTTAT ATTTTGGTT	1380
TAGATCAGTC AAGAGGTCTA ATAGTTCTAT TTGATATGAG ATATCCAAGT AAGTAGTTGG	1440
CTCATCTAAA AGTAGGATAC TTGTATCTTG GGCTAGGGCT AGAGCTATCC ATACTCTTTG	1500
CCTTTGACCC CCAGAAAGTT CTTCAACTAG GTTATTTGCT AGATCTTCAA CATTGGCCTT	1560
AACCATTGAT CTGTTTATTA TTTCAAGGTC ATCTTTTCCA AGACTCTTAA AAGGCTTTCT	1620
GTAGGGGAAA CGACCACGGC TTACAAGATC AGCTACTGTT ATTGATTGAG GGATTATTGG	1680
AGATTGAGGT AATATAGCTA TGTGTTTTGC TAAATCTTTT TCTTTATAAG AATTAATTGA	1740

1199

TTTATTATCA	AGCAATACTT	CTCCCTCTAA	TGGCTTTATA	AGTCGAGACA	AGGTTTTAAT	1800
GAGTGTTGAT	TTCCCACAAC	CATTTGACCC	AATAATAACT	GATATTTTTT	CTTCAGGTAT	1860
TTTTATATTT	ATATTTTCCA	AGATTATTTT	TTCATCATAA	CCGCAGGTAA	GATTATTTGA	1920
CCACAGACCT	TTCATTATAT	ATTCCTCCTG	TTCATTTTTA	TTAGTAAGTA	TATTAAGTAT	1980
GGTGAACCTA	ACAAGCCAGT	TACAACACCT	ACTGGATATC	TAGCTGGTAA	AATATTTTGA	2040
GAGAATATGT	CTGATAACAA	AACTAGTAAA	ATTCCAACCA	ATCCAGCTAA	TATTGGGCTT	2100
CTTTTCTTGC	CAATATTTAA	GGCTATGGGA	CCAGCTAAAA	AAGATATACA	AGCTATTGGT	2160
CCTGTAATTG	AAGTAGAAAA	AGCAGTTAAA	GATACAGCGC	AAAAAATTAA	AACAAGCCTT	2220
GAAAGCTCGG	GATTTGCTCC	AAGTCCGATT	GCTATTTCTT	CACCAAGTTC	AATAATTTCT	2280
AGTCTTTTAT	TAAAAAATAA	AACTAATATA	GTAGCAATAA	TACTTACTAT	TAGAACAAGA	2340
GGTATGTGAT	CTAACTTTGT	AAAAGATAAA	GAGCCACTGA	GCCATCTCAT	AACTTCTTGT	2400
AATTCATATC	TTGCTACTTT	CAACAATAAA	AATGAGGTGC	CTGCTCTTGT	GACAGCTTGA	2460
AAACCAATAC	CTAATATTAT	CAGTCTTGCT	GCTGAAAAAC	CATCTTTTTT	AGCTAGTAAA	2520
AATAATATTA	AAGATGATGT	TAGTCCACAA	GTTATTGAAA	TAATTCAGT	AGTTAAACTA	2580
TTTGTTTTTA	ATACCAATAT	GCAAAAGACC	GCTGCAATAG	ATGAAGAACT	TGTGACACCG	2640
ATTATATCAG	GACTTGCAAG	AGGATTTCTT	AACATAGTTT	GAAAGATAAA	TCCTGCCAAT	2700
CCAAAGACC	AGCCAGCTAT	AATTCCTGCT	AATAATTTTG	GTAATCTAAT	TTCCATAATC	2760
GAAAACTAG	CTCCAGGAAC	AGTTTCACTA	TTTAAGACTT	TAATCAAAGT	TGAAAAAGAA	2820
TAACTTTCAT	CTCCGATAAG	TAAAATGAAA	AATGATAGAC	TGATTATTAT	TAATAAAAAT	2880
AGTGAGGAAA	ATAGTGTAT	TCTATTTTTT	CTTTTTTGAA	TACCTATAAT	TAAATTTTGC	2940
ATTAGTTATT	AACCCCTCTA	TTTTTCATAG	TTACATAAAT	AAGTACTGGA	CCCCCGATTA	3000
TTGCAGTAAT	TATCCCTACT	TCAATTTTAC	CTGGTTTACC	TAACATACGG	CCGATTATAT	3060
CACATATAAG	CAAGAGCTCT	GCACCTATAA	AAGATGAAGA	AATGGTCATT	GTGCGTATAT	3120
CTTTGCTTAT	AAATAAGCCA	CAAAAGTGAG	GAACATAAAG	ACCTACGAAG	CCAATAGGTC	3180
CACCAATTGC	AGTAATACTT	GAACATAAAA	GCACACTTGC	AATTATTGCA	AGTGATCTTA	3240
TCCTATTAAC	ATTAACTCCA	AGACCAACAG	CCATTTTCATC	ACCCATAGcT	AAAGCGTTTA	3300
AATCTGATGA	AATAAATATA	GCTATCAAGT	GACCTAAAAAT	TATAAAAGGT	AGTAGTGTAG	3360
ATATAGAAGA	TAATGTAGCT	GCTCCAAGGC	TACCTATTTG	CCAAAACTA	AATTGTCTA	3420
AGACGTTATT	ATTCGGTAAA	ATTAAAAAAC	TTACAAAACT	GCTTAAAGCC	ATACTAACAC	3480

1200

AAGTTCCTGA TAAGGCAAGT TTTATAGGGG TAAGGCCTGC TTTCCGTTA CAGCAATCGC	3540
GTATACAAAA ATTGCACTTA CTAAGCCACC AATGATTGCG	3580

(2) INFORMATION FOR SEQ ID NO: 210:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11378 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 210:

CCAAATTGCT CCACAATTAT TATGGAGTCG TCGTTTGGCA GATGGGCGTG ATATGTGTGC	60
TCAAGAATGG TTGACAGGCA AGATATTGAC CCCCTATGAT ATGAATCGTA AGCAAATCGT	120
CAATATTTTA ACCCGTCTTC ATCGCTCAGC TCCGTTGATG ACACAATTGA GTCGTTGGG	180
CTATGCCATG GAAACACCTG TAGATTTACT ACAGTCTTGG CAGGAAACGG CTCCAGATGC	240
TTTGCGTAAA AATCATTTTA TCAGTGAAGT GATGGCTGAT TTACGTCAGA CTATTCCAGG	300
ATTTAGAGAG GACCATGCGA CCATTGTCCA TGGAGATGTA CGACATAGTA ATTGGATTGA	360
GACAGATAGT GGCTTGATTT ATTTAGTAGA TTGGGATTCG GTTCGCTTGA CCGATCGCAT	420
GTTTGATGTG GCCCATATGC TCTGCCATTA TATTTCAGAA CATCAGTGGA AGGAATGGTT	480
GACCTACTAC GGTTACAAGT ACAATCAAAC GGTATTAAGT AAATTGTATT GGTATGGTCA	540
ATTGTCTTAT TTGAGTCAGA TTTCCAAGTA TTATATGAAC CAAGATTTAG AAAATGTCAA	600
TCGGGAGATT CATGGTTTGC GTCATTTCCG AGACAAGTAT GGAAAGAGAA GATGAGAGTT	660
AGAAATCGTA AAGGGGCAAC AGAATTACTA GAGGCAAATC CCCAGTATGT GGTCCCTCAAT	720
CCCTTGGAAG CCAAGGCAAA ATGGCGGGAC TTGTTTGGCA ATGATAATCC CATTGATGTG	780
GAAGTTGGAA GTGGAAGGG TGCCTTTGTT TCAGGTATGG CCAAGCAAAA CCCTGACATC	840
AACTATATCG GGATTGATAT TCAAAAGTCT GTTTTGAGCT ACGCTTTGGA CAAGGTGCTT	900
GAAGTTGGAG TGCCTAACAT CAAGCTCTTG TGGGTAGATG GTTCTGACTT AACTGACTAC	960
TTTGAAGACG GTGAGATTGA TCGCTTGAT CTGAACTTTT CAGATCCATG GCCGAAAAAA	1020
CGCCATGAAA AGCGTCGTTT GACCTACAAG ACCTTCTTGG ATACCTTCAA ACGTATCTTG	1080
CCTGAAAATG GAGAAATTCA TTTCAAGACG GATAACCGTG GCTTGTTTGA GTACAGTTTA	1140
GTGAGCTTTT CTCAATATGG CATGAACTC AATGGTGTCT GGTTAGATTT GCATGCCAGT	1200
GATTTTGAAG GCAATGTCAT GACAGAATAC GAGCAAAAAT TCTCAAACAA GGGGCAAGTT	1260
ATCTACCGAG TTGAGGCAGA ATTTTAAGAG ATAACCTAAA ATTAGGCTGT ACAAGTGCTT	1320

1201

TTGCTTTACA TAAGTTGGCA AACGTGCTAT ACTGATAGTA AGAATATGAA AAGTGAGGCG	1380
GGGAAATATC TTCGCCTCTT GCTTATGAGG AGGTGGACGC AATCGCAACA ATCGTAGAAT	1440
TAGTCAGAGA AGTTGTAGAA CCGTCATAG AAGCTCCTTT TGAACCTGTG GATATCGAGT	1500
ATGGAAAGAT TGGCAGTGAC ATGATTCTCA GTATTTTGT AGATAAACCC GAAGAATTAC	1560
CTTGAACGAC ACGGCAGACT TGACAGAAAT TATCAGTCCT GCCTTAGACA CCATCAAGCC	1620
AGATCCCTTC CCAGAACAAT ATTTCTAGA AATTACCAGT CCAGGTTTG AACGTCCTTT	1680
GAAAACCAAG GATGCCGTCG CTGGAGCGGT TGGAAAATAC ATCCATGTCG GGCTCTACCA	1740
AGCCATCGAT AAGCAAAAGG TCTTTGAAG AACCTTGTG GCCTTCGAAG AGGACGAGTT	1800
GACTATGGAA TATATGGACA AGACGCGTAA GAAAACCGTC CAAATCCAT ACAGTTTAGT	1860
ATCAAAAGCA CGTTTAGCAG TTAAATTATA GAAAAGAAA GGATAGCTTT TGAGGATTCA	1920
AAAGTGAAGA AAACATGAGT AAAGAAATGC TAGAGGCCTT CCGCATTTTG GAAGAAGACA	1980
AGGGAATCAA AAAAGAAGAT ATCATCGACG CAGTAGTAGA GTCGCTTCGT TCCGCTTATC	2040
GCAGACGCTA TGGTCAGTCA GACAGCGTAG CTATTGACTT CAACGAAAA ACAGGTGACT	2100
TTACAGTTTA TACTGTCCGT GAAGTTGTTG ATGAAGTATT TGATAGCCGT TTGGAAATCA	2160
GCTTGAAAGA TGCTCTTGCC ATTAATTCAG CTTATGAACT TGGAGACAAA ATCAAGTTTG	2220
AAGAAGCACC AGCTGAGTTT GGTGCTGTAG CAGCCCAATC TGCCAAACAA ACCATCATGG	2280
AAAAAATGCG CAAGCAAACA CGTGCCATCA CTTACAATAC TTACAAAGAA CATGAGCAAG	2340
AAATCATGTC TGGTACAGTA GAACGCTTTG ACAACCGCTT TATCTATGTC AACCTTGGTA	2400
GCATCGAAGC CCAATTGTCA AAACAAGACC AAATTCCTGG AGAAGTTTTT GCTTCTCATG	2460
ATCGTATCGA AGTTTATGTT TACAAGGTTG AAGACAACCC TCGTGGTGTG AACGTCTTTG	2520
TTAGCCGTAG TCATCCAGAA ATGATCAAAC GTTTAATGGA GCAAGAAATT CCAGAAGTTT	2580
ATGATGGAAC TGTGAAATC ATGAGCGTGG CTCGTGAAGC AGGTGACCGT ACGAAGGTTG	2640
CTGTTCTGTAG CCACAATCCA AACGTGGATG CTATCGGTAC AATCGTTGGA CGTGGTGGTG	2700
CTAATATCAA GAAGATTACT AGCAAATTC ACCCAGCTCG TTACGATGCT AAAAATGACC	2760
GCATGGTACC AATCGAAGAA AATATCGATG TTATCGAGTG GGTAGCAGAT CCAGCTGAAT	2820
TTATCTACAA TGCCATCGCT CCTGCTGAGG TTGACCAAGT TATCTTTGAT GAAAACGACA	2880
GCAAACGTGC CTTGGTGGTT GTTCCAGATA ACAAGCTTTC TCTTGCCATT GGTGCTCGTG	2940
GACAAAACGT GCGCTTGCG GCTCACTTGA CTGGTTACCG TATCGATATC AAGTCTGCTA	3000
GCGAATTTGA AGCCATGGAA GACGCTGCTT CAGTAGAGTT GGAAGTAGAA AACGATACTG	3060

1202

TAGAAGAATA AAAGCTGCTA GAGGAGGGAA AGATGAAAAC AAGAAAAATC CCTTTGCGCA	3120
AGTCTGTTGT GTCTAACGAA GTGATTGATA AGCGTGATTT GCTCCGCATT GTCAAGAACA	3180
AGGAAGGACA AGTCTTTATT GATcCTACGG GCAAGGCCAA TGGCCGCGGC GCTTATATCA	3240
AACTAGACAA TGCAGAAGCC CTAGAGGCCA AAAAGAAGAA GGTCTTTAAC CGCAGCTTTA	3300
GCATGGAAGT GGAAGAAAGC TTTTATGACG AGTTGATCGC TTATGTGGAT CACAAAGTGA	3360
AAAGAAGAGA GTTGGGACTT GAATAAGCAA AAGATAAGTA ATCTCTTGGG GCTTGCTCAG	3420
CGAGCAGGGC GCATCATATC GGGTGAAGAA TTGGTGGTCA AGGCCATTCA AGACGGCAAG	3480
GCCAAGTTGG TCTTCTAGC TCATGATGCT GGACCCAATC TGACCAAGAA GATTCAAGAT	3540
AAAAGTCATT ATTATCAAGT AGAAATTGTA ACCGTGTTTT CAACACTGGA ATTAAGCATA	3600
GCAGTCGGGA AATCGAGAAA GGTTTTGGCT GTAACAGATG CTGGATTTAC AAAGAAAATG	3660
AGGTCTCTTA TGGAATAGAA GAGGAGGACA TGATTTGTCT AAGAAAAGAT TGTACGAAAT	3720
CGCAAAAGAA CTTGAAAAG AAAGTAAAGA AGTTGTAGCG CGTGCAAAAG AGTTGGGCTT	3780
GGATGTGAAA AGCCACTCAT CAAGTGTTGA AGAAGCTGTC GCTGCAAAAA TTGCTGCCAG	3840
CTTTAAGCCT GCAGCTGCTC CGAAAGTAGA AGCAAAACCT GCAGCCCCAA AAGTAAGTGC	3900
AGAAAAGAAA GCCGAAAAAT CTGAGCCAGC TAAACCAGCT GTAGCTAAGG AAGAGGCAAA	3960
ACCTGCAGCC CCAAAAGCAA GTGCAGAAAA GAAAGCCGAA AAGTCTGAAC CAGTAAACC	4020
AGCTGTAGCC AAGGAAGAGG CAAAACCAGC TGAGCCAGTC ACTCCGAAAA CAGAAAAAGT	4080
AGCGGCTAAA CCGCAAAGTC GTAATTTCAA GGCTGAGCGT GAAGCACGTG CTAAAGAGCA	4140
GGCAGAGCGA CGCAAGCAAA ATAAGGGCAA TAACCGTGAC CAACAACAAA ACGGAAACCG	4200
TCAGAAAAAC GACGGCCGTA ATGGTGAAA ACAAGGTCAA AGCAACCGCG ACAATCGTCG	4260
CTTTAATGAC CAAGCTAAGA AGCAGCAAGG TCAGCAAAAA CGTAGAAATG AGCGCCGTCA	4320
GCAAGAGGAT AAACGTTCAA ATCAAGCGGC TCCACGTATT GACTTTAAAG CCCGTGCAGC	4380
AGCCCTAAAA GCAGAGCAAA ATGCAGAGTA CGCTCGTTCA AGTGAGGAAC GCTTCAAGCA	4440
GTATCAGGCT GCTAAAGAAG CCTTGGCTCA AGCTAACAAA CGCAAGGAAC CAGAGGAAAT	4500
CTTTGAAGAA GCGGCTAAGT TAGCTGAACA AGCACAGCAA GTTCAAGCAG TGGTTGAAGT	4560
CGTCCCTGAG AAAAAAGAAC CTGCAGTGGA TACACGTCGT AAAAAACAAG CTCGACCAGA	4620
CAAAAATCGT GACGATTATG ATCATGAAGA AGATGGTCCT AGAAAACAAC AAAAGAATCG	4680
AAGTAGTCAA AATCAAGTGA GAAATCAAAA GAATAGTAAC TGGAATAACA ACAAAAAGAA	4740
CAAAAAGGC AATAACAAGA ACAACCGTAA TCAGACTCCA AAACCTGTTA CGGAGCGTAA	4800
ATTCCATGAA TTGCCAACAG AATTTGAATA TACAGATGGT ATGACCGTTG CGGAAATCGC	4860

1203

AAAACGTATC AAACGTGAAC CAGCTGAAAT TGTTAAGAAA CTTTTCATGA TGGGTGTCAT	4920
GGCCACACAA AACCAATCCT TGGATGGGGA AACCAATTGAA CTCCTCATGG TGGATTACGG	4980
TATCGAAGCC AAACAAAAGG TTGAAGTGA TAATGCTGAC ATCGAACGTT TCTTTGTCGA	5040
AGATGGTTAT CTCAATGAAG ATGAATTGGT TGAGCGTCCA CCAGTTGTTA CTATCATGGG	5100
ACACGTTGAC CACGGTAAAA CAACCTTTT GGATACTCTT CGTAACTCAC GTGTTGCGAC	5160
AGGTGAAGCA GGTGGTATTA CTCAGCATAT CGGTGCCTAC CAAATCGTGG AAAATGGTAA	5220
GAAGATTACC TTCCTTGATA CACCAGGACA CGCGGCCTTT ACATCAATGC GTGCGCGTGG	5280
TGCTTCTGTT ACCGATATTA CGATCTTGGT CGTAGCGGCA GATGACGGGG TTATGCCTCA	5340
GACTATTGAA GCCATCAACC ACTCAAAAGC AGCTAACGTT CCAATCATCG TAGCTATTAA	5400
CAAGATTGAT AAACCAGGTG CTAACCCAGA ACGCGTTATC GGTGAATTGG CAGAGCATGG	5460
TGTGATGTCA ACTGCTGGG GTGGAGATTG TGAATTTGTT GAAATTTGCG CTAAATTCAA	5520
CCAAATATC GAAGAATTGT TGGAAACAGT CCTTCTTG TGCTGAAATCC AAGAACTCAA	5580
AGCAGACCCA ACAGTTCGTG CGATCGGTAC GGTATCGAA GCGCGCTTGG ATAAAGGAAA	5640
AGGTGCGGTC GCAACCTTTC TTGTACAACA AGGTACCTTG AATGTTCAAG ACCCAATCGT	5700
TGTCGGAAAT ACCTTCGGTC GTGTCCGTGC TATGACCAAC GACCTTGGTC GTCGTGTTAA	5760
AGTTGCTGGA CCATCAACAC CAGTCTCTAT CACAGTTTG AACCAAGCAC CGATGGCGGG	5820
TGACCACTTT GCCGTTACG AGGATGAAAA ATCTGCGCGT GCAGCAGGTG AAGAGCGTGC	5880
CAAACGTGCC CTCATGAAAC AACGTCAAGC TACCCAACGT GTTAGCCTTG AAAACCTCTT	5940
TGATACCCCT AAAGCTGGGG AACTCAAATC TGTTAATGTT ATCATCAAGG CTGATGTACA	6000
AGGTTCTGTT GAAGCCCTTT CTGCCTCACT TCAAAAGATT GACGTGGAAG GTGTCAAAGT	6060
GACTATCGTC CACTCAGCG TCGGTGCTAT CAACGAATCA GACGTGACCC TTGCCGAAGC	6120
TTCAAATGCC TTTATCGTTG GTTTCACAGT ACGCCCTACA CCACAAGCTC GTCAACAAGC	6180
AGAAGCTGAC GATGTGGAAT TCCGTCTTCA CAGCATTATC TACAAGGTTA TCGAAGAGAT	6240
GGAAGAAGCT ATGAAAGGGA TGCTTGATCC AGAATTTGAA GAAAAAGTTA TTGGTGAAGC	6300
GGTTATCCGT GAAACCTTCA AGGTGTCTAA AGTGGGAAT ATCGGTGGAT TTATGGTTAT	6360
CAACGGTAAG GTTGCCCGTG ACTCTAAAGT CCGTGTTATC CGTGATGGTG TCGTTATCTA	6420
TGATGGTGAA CTCGCAAGCT TGAACACTA TAAAGACGAC GTGAAAGAAG TGACAAACGG	6480
TCGTGAAGGT GGATTGATGA TCGACGGCTA CAATGATATT AAGATGGATG ATGTGATTGA	6540
GGCGTATGTC ATGGAAGAAA TCAAGAGATA AGATTTTTTG CTCCTTTCTT AGGTGGTGAG	6600

1204

GGACGCAAGC AAACCGATGG TTTCATTGCT TATTTTGTGAG CCTAGGGTCT CAAAAATCCC	6660
CTGTGATGGG ACTGATAAAT CAGTTCCATC ACTTTCACCA CGGCGAAAGA AGCAGATGAC	6720
TTCAAATTGA ACTTCGTTTC AATTTAAACT GAAAATCAAG AAGTTTAAAA TAGCTAGGTC	6780
TGCTGGCCTA GCTTTTGGTT CAAAGTAGAG AAAGGAATAT CATGGCAAAT CATTTCCGTA	6840
CAGATCGTGT GGGCATGGAA ATCAAGCGTG AAGTCAATGA GATTTTGCAA AAGAAAGTCC	6900
GTGATCCACG TGTCCAAGGT GTGACCATCA TAGATGTTCA GATGCTGGGT GACTTGTCTG	6960
TTGCCAAGGT TTATTACACC ATTTTGAGTA ACCTTGCTTC GGATAACCAA AAAGCCCAA	7020
TCGGGCTTGA AAAAGCAACT GGTACCATCA AACGTGAACT TGGTCGCAAT TTGAAATTGT	7080
ACAAAATCCC AGATTTGACC TTCGTCAAAG ACGAGTCCAT CGAGTATGGA AACAAGATTG	7140
ACGAGATGCT ACGCAATCTG GATAAGAACT AAAGAAGAGG GGTGCCCCCT CTTTTTGGT	7200
GGAGGAAAAT AGGTTGAATT TGAAATGGAA AAATATTCTT TTATAATAGA TTGAAACTAG	7260
AATAGTACGC CTCTACTTCT AAAATATTGT TAGAAATCGA TTTGACTGTC CTGATCGATT	7320
TGTCCTGTTT TGTTCATTT TTAATATAAA AAAGGGATTC TGTATTTTTT AATGTTATCT	7380
AATTAGAAAA TGCTTTTTTT GTAGGAAATA TAATATGATA AGGTGCAAAA AAGAAATAAG	7440
GAGTTTGAT ATGGCTGAAC AAGACTTAGC TATGCAAGTA TTGCAACAAG TGGTGAAACT	7500
ACCTGTGTT AAGGTTGATC GTTCGAAAT TTTAGTGGAT AAGTTTCCA AAGAATTGGA	7560
TCCAAAAGAT ATTCTACCT TATTGGAACA AGGTCCAACG ACTCTTCTAT CTCAAGAAAT	7620
ATTAGATCGT GTAGCTAATG CTGTATTTCG GGACAATGTA TTATTAGCGA GTGGGACTTC	7680
TGTTTTGGCA GGATTACCTG GAGGGCTTGC TATGGCAATT ACCATCCAG CTGATGTGGC	7740
TCAATTTTAT GCTTCTCTC TGAATTTGGC TCAAGAATTA GGTATATTT ATGTTATGA	7800
GGATCTTGG GCTTCACGAG AGGAGTTGAG TGAAGATGCT CAAAATACCC TCTTGCTTTA	7860
TCTAGGCGTA ATGTTAGGGG TGAATGGAAC CGCTGCTTTG CTACGTGTTG GTAGTATAAC	7920
AATTGCCAAA CAGGTAATGA AAATAGTGCC TAATAAGCT TTAACAAAGA CGCTTTGGTA	7980
CCCTATTTTG AAAAAAGTCT TAAAAATAT TGGTGTGAAT CTTACCAAGG GAGGGTTGGC	8040
CAAAGGAATG GGGAAATTTA TTCCTATCTT GGGTGGTATC ATTTCAGGTG GTTTAACCTT	8100
TGCAACTATG AAACCAATGG GGGAAAGCTT GCAGAAAGAA TTATCCAAGC TAGTCAACTA	8160
TAGTGAAGTT CAATATCAAG AAGATGTTGA AACAATCCGA AAAGAGGCTG AAATCATCAA	8220
AGGAGAGTAA TATGAATCCT ATCAAAGCTT TTGCTAAAAT TTATGGTAAT TACTTTTTGA	8280
CCGTGCAAGG TGTAAAGTG ATGAAAACGA TAAAGAAAGC TGACCATGTC GTTGTGGTC	8340
TGGGGAAACT TTTTATTGCC GACAAGTTAA TGGATACGGC TCGGTGGCTC ATTAAGCCAG	8400

1205

AGGAGAGAGA ATGAAATTTT TTTGGTCTTC TTGCTATTCT TTTTATCAAA CCGATTATTG	8460
GGATTGTGAA ATTCCTTTGG ATGATCATCT CTTTTCAGT CCAATTGCTG TTTTACAAGA	8520
TAGTGTTTAA GATATTGGAT TGGCTCTTTA AACTTATCTA GATGGTAATC CAAGTTGCAG	8580
AGAACTAGCA GGAACCCAC TGCTAGTTTT TTATTCTCTT TCCATATGGT ATAATATAAG	8640
CAGTAAAATC ATTTTATACT CTTGAAAAT CTCTTCAAAC CACGTCAGCT TCACCTTGCA	8700
GTATATATGT TACTGACTTC GTCAGTTCTA TCCACAACCT CAAAACGGTG TTTTGAGCTG	8760
ACTTCGTCAG TTCTATCTAC AACCTCAAAA CACTGTTTTG AGCAACCTGC GGCTAGCTTC	8820
CTAGTTTGCT CTTTGATTTT CATTGAGTAT TAGAACATAC AATGGAGGTC GTCATGGACA	8880
ATATCATCGA TGTGTCAATT CCTGTTGCAG AAGTGGTGA CAAGCATCCA GAAGCTTGG	8940
AAATTCTAGT GGAGTTGGGT TTAAACCCC TTGCCAATCC CTTAATGCGC AATACAGTTG	9000
GTCTAAAGT ATCACTTAAA CAGGGTCTA AGCTAGCAGG AACTCCTATG GACAAGATTG	9060
TACGCACACT GGAAGCGAAT GGCTACGAAG TGATTGGATT AGACTAATGA CAGATGAACG	9120
GATTCATATC CTACGGGATA TTTTGTTAGA ATTGCACAAT GCGCCTCTC CTGAGTCGGT	9180
TCAAGATCGC TTTGATCGA CCTTTACGGG CGTGTACGCC ATCGAGATTT CCCTTATGGA	9240
GCACGAGCTG ATGAACTCGG ATTCGGGCGT CACTTTTGAA GATGTTATGG AACTCTGTGA	9300
TGTCCATGCC AATCTTTTAA AAAATGCTAT CAAAGGTCTC CAAGTTTCAG ATACTGAGCA	9360
TCCAGGTCAC CCAGTTCGTG TCTTCAAAGA AGAAAATCTG GCTCTCCGTG CGGCCTTGAT	9420
TCGCATTCTG AGATTGTTAG ATACCTATGA GTCTATGGAA GACGAGGAAA TGCTGGCGGA	9480
GATGCGTAAG GGTTCGGTGC GTCAGATGGG ACTTGTGGGT CAATTTGACA TCCATTACCA	9540
ACGTAAGGAA GAACCTTCTT TTCCTATCAT GGAGCGCTAT GGACACGATT CACCTCCCAA	9600
AGTTATGTGG GGAGTGGATG ATCAGATTAG GGAACCTCTT CAAACAGCTC TAACGACAGC	9660
CAAGTCACTA CCAGAAGTGT CAATTAGCAG TGTAAGGAA GCTTTTGAA CTTTTCGAC	9720
AGAGTTTGAA AGTATGATTT TCAAGGAAGA GTCCATCCTC CTCATGATTC TCCTTGAGTC	9780
TTTACTCAG GATGACTGGC TTCAGATTGC GGAGGAGAGC GATGCCTATG GCTATGCCAT	9840
CATCCGTCCG TCAGAGAAAT GGGTGCCAGA ACGACAGAGC TTTATTGAGG AAAAGATTGC	9900
AGAGGAGCCT GTACAGCTAG ATACGGCAGA AGGTCAAGTT CAACAAGTCA TAGATACGCC	9960
AGAAGGCCAT TTTACCATTA CCTTTACCCC TAAGGAAAAG GAAGCTGTGC TGGACGCCA	10020
TAGTCAACAG GCTTTTGGTA ATGGCTATCT TTCAGTCGAG CAGGCCAATC TCATCCTCAA	10080
TCATCTCCCT ATGGAGATTA CCTTTGTCAA TAAAGAAGAT ATTTTCCAGT ATTACAATGA	10140

1206

CAATACGCCA GCTGATGAGA TGATTTTCAA ACGGACGCCG TCCCAAGTCG GGCGCAATGT	10200
CGAACTCTGC CATCCGCTTA AGTACTTGGA CAAGGTCAAA ACTATCATGA AGGGGCTTCG	10260
TGAGGGAAGC AAAGACAAGT ATGAAATGTG GTTCAAGTCT GAGTCGCGAG GTAAGTTTGT	10320
CCACATCACC TATGCTGCAG TACACGATGA AGACGGAGAA TTCCAAGGAG TGTGAGTA	10380
TGTTTCAGGAT ATCCAGCCCT ACCGTGAGAT TGATACGGAC TATTTTCGTG GATTAGAATA	10440
AGGAGAAAAA ATGAGTTACG AACAAGAATT TATGAAGGAA TTTGAAGCTT GGGTCAATAC	10500
CCTAATCATG ATTAACGACA TGGCGCACAA GGAAAGCCAA AAAGTTTACG AAGAAGACCA	10560
GGACGAGCGT GCCAAAGATG CCATGATTCG CTACGAGAGT CGCTTGATG CTTATCAGTT	10620
CTTGCTTGGT AAGTTTGAAA ACTTCAAAGT AGGCAAGGGA TTCCATGATT TGCCAGAAGG	10680
CTTGTTTGGT GAGCGAAATT ATTAACGAG AAAGATTCTT GATTTTTCAC TAAAATCTTG	10740
ATAGAATGTT TATGTTAAAT CCTTGTCAGA GCAGGGATT TTTATTGAAA GGATTTTATC	10800
ATGTCAAAGA AACTCAATCG TAAAAACAA TTACGAAATG GCCTCCGTCG CGCAGGTGCC	10860
TTTTCAGTA CGGTGACTAA GGTGTAGAT GAGACAAAAA AAGTCGTGAA GCGTGCAGAA	10920
CAGTCAGCAA GCGCAGCTGG TAAGGCTGTT TCTAAAAAAG TTGAACAAGC AGTAGAAGCT	10980
ACCAAAGAGC AAGCTCAAAA AGTAGCTAAT TCTGTAGAAG ATTTTGCAGC AAATTTGGGT	11040
GGACTTCCAC TTGATCGTGC CAAGACTTTC TATGATGAAG GAATCAAGTC TGCTTCAGAT	11100
TTCAAAAACT GGACTGAAAA AGAACTCCTT GCCTTGAAAG GAATCGGCC AGCTACCATC	11160
AAGAAATTGA AAGAAAATGG CATCAAGTTC AAGTAATTTT TCTTGAGCCT TGCATTTCCG	11220
AAAAAATCTT GCTACAATAG AGCCATTAGA GGTGTTTGA ATCCACATT TTACAGAAAG	11280
TGGCGCGCT GAGAAAGTCCA CAAATGTGTC AAAACTGGTT GCTAATGGAT GAAAAATTGA	11340
AATAAAAGTG TCTTTTGCT TAAAAGACGA GAGTTGCG	11378

(2) INFORMATION FOR SEQ ID NO: 211:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4156 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 211:

CCGCGAGCCA CGCGGAATTT GCTGCGGGTA TTCATCAGTC AGGATCTATG ATCTTTGGTG	60
AACAAGAAAA GGTTCAGTT GTGACCTTTA TGCCAAATGA AGGTCCTGAT GATCTATACG	120
CTAAGTTTAA TAACGCTGTT GCTGCATTG ACGCAGAAGA TGAGGTTCTA GTTTTGGCTG	180

1207

ACCTTTGGAG TGGTTCTCCA TTAAACCAAG CTAGTCGCGT GATGGGAGAA AATCCTGAGC	240
GTAAGTTTGC CATCATCACA GGACTTAACT TACCGATGTT GATTCAAGCC TACACAGAGC	300
GCCTCATGGA CGCTGCTGCA GGTGTAGAAA AAGTCGCTGC TAATATCATT AAAGAAGCCA	360
AAGATGGCAT CAAAGCTCTT CCAGAAGAGC TAAATCCAGT CGAAGAAGTT GCAAGCGCTG	420
CAGCTGCTCC AGTTGCCCAA ACTGCTATCC CAGAAGGAAC TGTATCGGA GACGGTAAAT	480
TGAAAAATCAA TCTTGCCCGT CTTGACACAC GTCTACTTCA CGGTCAGGTT GCAACTGCTT	540
GGACTCCAGA TTCAAAGCA AATCGTATCA TCGTTGCTTC AGATAACGTG GCTAAAGACG	600
ACCTTCGTAA AGAATTGATT AAACAAGCAG CTCCAGGTAA TGTCAAGGCT AACGTGGTTC	660
CAATTCAAAA ACTGATTGAG ATTTCAAAAG ACCCACGTTT TGGAGAAACA CATGCCCTTA	720
TCTTGTTTGA AACACCTCAA GATGCCCTTC GTGCCATCGA AGGCGGCGTG CCAATCAAGA	780
CTCTTAATGT TGGTCTATG GCTCACTCAA CAGGTAAAC ATTGGTCAAT ACCGTTTGT	840
CTATGGACAA AGAAGACGTT GCTACATTTG AAAAAATGCG TGACTTGGGT GTTGAATTTG	900
ATGTCCGTAA AGTACCAAAT GATTCTAAAA AAGATTTGTT TGACTTGATT AACAAAGCCA	960
ATGTCAAATA AGCCATTATT TATGAAAGGA TTTTAAACAT GTCTATTATT TCTATGGTTT	1020
TAGTAGTCGT TGTAGCCTTC TTTGCAGGTC TTGAAGGCAT CCTCGACCAG TTCCAATTTT	1080
ACCAACCACT TGTAGCCTGT ACCCTTATTT GGCTTGTAAC AGGTCACCTTG GAACCAAGGA	1140
TTATCCTCGG TGGATCGCTT CAAATGATTG CCCTTGGTTG GTCAAATATC GGTGCTGCTA	1200
TCGCTCCTGA TGCTGCACTT GCTTCTGTCG CTGCTGCCAT TATCATGGTT CTTGGTGGTG	1260
ACTTTACCAA GACTGGTATC GGTGTTGCCC AAGCGGTTGC TATCCCTCTT GCTGTAGCTG	1320
GACTTTTCTT GACAATGATT GTTCGTACAA TTTCAGTTGG TTTGGTTCAT ACTGCAGATG	1380
CTGCCGCTAA AAAAGGTGAC TTCGGCGCTG TGGAGCGTGC GCATTTTCATC GCGCTACTTT	1440
TCCAAGGACT TCGTATCGCG CTTCTGTCAG CTCTTCTCCT TATGGTACCA ACTGAAACTG	1500
TACAAAGTAT CCTTAGTGCC ATGCCAGACT GGCTCAAAGA TGGTATGGCT ATCGGTGGTG	1560
GTATGGTCGT TGCCGTTGGT TACGCCATGG TTATCAACAT GATGGCAACT CGTGAAGTAT	1620
GGCCATTCTT CGCTCTTGGT TTCGTTCTCG CTGCTGTGTC AGATATTACT CTAATCGGAT	1680
TCGGTGCTAT CGGCGTTGCT ATCGCTCTTA TCTACCTTCA CCTTTCTAAA ACTGGTGGAA	1740
ATGGTGGCGG AGGAGCCGCA ACTTCTAACG ACCCAATCGG CGATATCCTA GAAGACTACT	1800
AAGATAAGAA AGGACTGAAA ACATCATGAC TGAAAACTT CAATTAACTA AATCAGATCG	1860
TAAAAAAGTT TGGTGGCGTT CAACCTTCTT ACAAGGGTCT TGGAACTTTG AACGGATGCA	1920

1208

AAACTTGGGC TGGGCTTATA CACTCATTC	AGCTATCAAA	AAACTCTATA CTAAAAAGA	1980
AGATCAAATC GCTGCTCTTG AGCGTCACCT	TGAGTTCTTC	AACACTCATC CATACGTAGC	2040
TGTCCCAGTC ATGGGGGTTA CTCTTGCCT	TGAAGAAGAA	CGTGCTAACG GTGTGGAAAT	2100
CGATGACGCT GCTATCCAAG GGGTTAAAT	CGGTATGATG	GGACCTCTTG CTGGTATCGG	2160
TGACCCAGTA TTCTGGTTTA CAGTACGCCC	AATCCTTGA	TCTCTCGGTG CTTCACCTGC	2220
CCTTACTGGC AATATCTTGG GGCCACTCCT	CTTCTTTGTT	GCATGGAACT TGATTCGTAT	2280
GTCATTCTTG TGGTATGTTT AAGAGATTGG	ATACAAGGCT	GGATCAGAAA TCACTAAAGA	2340
TATGTCCTGG GGTATCCTTC AAGATATCAC	TAAAGGAGCT	TCTATCCTTG GGATGTTTAT	2400
TCTTGCTGTC CTTGTTCAAC GCTGGGTAAA	TATTAAATTT	GCTTTGATG TTTCTAAAGT	2460
TCAACTAGAT GAAAAGGCTT ATATCCATTG	GGATAAATTG	CCAGAAGGGT CTAAAGGTAT	2520
CCAAGAAGCA TTCGCACAAG TAGGACAAGG	ATTGTCCTCA	ACTCCTGAAA AAGTTACTAC	2580
TTTCCAACAA AACTTGGATA TGTGATTCC	TGGATTATCA	GGACTACTCC TTACTTTACT	2640
TTGCATGTAC TTACTTAAGA AAAAAGTATC	TCCAATCACT	ATTATCCTTG CCCTCTTCGC	2700
AGTGGGTATT GTGGCACATG TTCTTCACAT	CATGTAATCA	AGCAACTAAA AAGGAACCAG	2760
GTTCTAAAT CTGATTCCTT TTTTCTATGC	TTTATTTCAG	CCAAGGCTCC CATTGGATCC	2820
CATGGTGCAA GTACGATTGG TTCTGCTCCA	TAGGCAGCTT	GTTCTTCTGC TGTGAGCAAT	2880
TCCTTACGAA CAACGATTTG GTATGTGTAT	TCGTCCATCC	AAGCGTCTGA GGCAACAAAG	2940
TAACCATCTG TACCGACCTT GTCTCCCCAT	GAGTTTCAA	CCTTCCACTT GGTGATTTA	3000
CCATTTTCGT CCAAGTCAAC ACCTGTCAAG	ACCATGGCGT	GGGTCATCAA GCTTCTACTA	3060
TAGTCCAAAC GTCCAGCCTT GTCTTGAGTA	AGTTTAATGT	CCATGCTTGA TTCAAAGTCA	3120
TAAACATCTG TCGCAAGGAT GCCAGCTTAC	GGTTGCTGAG	CTGGCCGACA TCAGAACCAA	3180
ACCAAACAGT CTCACCTGCT TGCATTGGG	CAATCGCCAA	TTCTTTCAAG CGCTCCATTG	3240
GAACGTTGAT GTAGCGAACT GCACGGCTAC	CAACCACATT	CCCCAACATC TCAACTGTGT	3300
AAGATTTTCC GTAAGGTTTA TCAGCAGTTG	GAGCATTGAT	AACAGAAACG TAGTCTTCTA	3360
AAGGAAGATT GACATATTTT TTGTAAACT	CTTGTGGTGT	GATTCCTTTT TCACTTTTGT	3420
AGTTGTTATC TTTATCGCGA TAAGCAAAGT	CAAACCTGCG	TGGTGGAAGT CCTAATGACA	3480
TAGCAAGAAA GTTAAAGATT TCTTGCAAGA	GGTCTTCTTT	CTTAGCTTGA ACAGTCGCTT	3540
GATCTGCACC AGAAACAAGC AAGTCACGCA	AGATTGAGC	ATCTTGACGA AGCAATTTAT	3600
TAAGGATCGC ATTTAGCTCA CGACTGCTGC	TAGATGAAAC	AGACTCAGGA TAAACTGACT	3660
TAGGCACGAC ACCGTATTTT TCAAAGAGGG	AAACGACCAT	ATCCCATTGA CCGCCATCTT	3720

1209

GTTGAGGTGT TTGGAGTAAG AAGCTAACTT GCGGCTAGTC AATTCTTGGT CTGAAGTCGC	3780
AATGACTTGC TCCAAGAACC AGTTTGATTT CTCATACTTA TCCCAGAAGA AAGTGTGGGC	3840
TTGTGACAAC TCAAAGTTCT CCAATTGTA TTGCGAGATG AGTTTGTGGC GGAAGGTGTT	3900
GAGAGCCGCA AACATCCAGC AACGACCAGA CGCTTCTTGG TTAGTGACCT TGTCTTGGT	3960
TAAATCCAAT GAGAAAACAG GTGTGTTGTC TACATGGCTT TGGCGACGTT CCAGAGCTGC	4020
AAAAATCCG TTGTGGCTGG CAGCATTTTC AATCGCTTGG TATTTTACAT TTGCTTCATA	4080
GTTGGCAAAT AGTTTATCAG TAAATGATTC TTGAATCGCG TTCATAGATT CCTCCTTTTA	4140
GTCTACAGTG TATTGG	4156

(2) INFORMATION FOR SEQ ID NO: 212:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3902 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 212:

AAAAACAACA AAATAAACA AAAACAAAAA TATCGAGGTT TATTTTCAAA ACTTTCGATA	60
TTTTTATTAA GTTATTATTT TGTGTGTTCT AGTTTACTTT TGCATGGTTA AGAGTGGTGG	120
AGAATTATAC TCAATGAAAA TCAAAGAGCA AACTAGGAAG CTAGCCGCAG GCTGTACTTG	180
AGTACGGCAA GCGAAGCTG ACGTGGTTTG AATTGATTT TCGAAGAGTA TTAGTGCAAA	240
CCGTAGTTGT AGTCATCATC TTGCATGGCT TCAACTTCGC CAAGAAGGTA ACCATTTCCG	300
ACTTGAGAGA AGAAGTCATG GTTGGAAAGT CCTGTTGAAA TACCGTTCAT AACGATTGGG	360
TTGACATCTT CAGCTGAATC TGGGAAAAGT GGATCTTGTC CCATGTTTAT GAGAGCTTTA	420
TTGGCATTGT AGCGAAGGAA GGTTTTAACC TCTTCAGTCC AACCAACACC GTCATAAAGA	480
CTCTCTGTGT AGCCTTCTTC ATTTTCATAA AGAGTATAGA GTAGGTCGTA CATCCATTCT	540
TTGAGTTTTT CTGCTCTTC TTCAGGTAAT TCATTGAAAC CAAGTTGGAA TTTGTAACCA	600
ATGTAGGTTT CCGTGAACAGA CTCGTCACGA ATAATCAATT TAATGATTTT TGCAACGTTG	660
GCAAGTTTGT TGTTACCGAG ATAGTAGAGG GGAGTGAAGA AACCAGAGTA GAAGAGGAAG	720
GTTCGAGGA AGACGCTGGC AACTTCTTT TCAAGTGGGC TGCCGTTTAG GTAGATTTCTG	780
TTGACAATCT CAGCCTCTTT TTGTAGGTAA GGATTGGTAT TGGTCCATTC GAAAATTTCT	840
TCAATCTCAG CCTTAGTATT CAAGGTAGAA AAGATTGATG AGTAAGATTT AGCGTGGACA	900

1210

GATTCCATAA ATTGGATGTT ATTGAAGACA GCTTCCTCAT GTGGTGACG GATGTCTGCG	960
CGAAGGGCTT GAACCCAGT TTCAGATTGC ATAGTGTCAG GAAGGGTTAA ACCACCAAAA	1020
ACTTTTCCGA CCAAGTCTTT CTCTTTGTTA GATAGCTTTC TCCAGTCATC CAAGTCGTTT	1080
GATAAGGGAA TACGTGTATC GAGCCAAAAT TGCTCCGTCA GTTTTTCCTCA AGTTGATTG	1140
TCGATGACAT CTTGATGGC ATTCCAGTTA ATGGCTTTGT AGTAAGTTTC CATTTAAAT	1200
CTCTTTCTGT GTTTAGTATT GCGAACTCAC AATTATTTCT ACTTTACCAT AATTCTATAG	1260
GAGTATCGCA CAAAAGTCG GAAGCCCGAC TTTTAAATG TTACATAAAT TATGTTATGA	1320
CATAGTAGAT TTGATTTTAT CAGTGCTGCT TAGGGAAAAA TAGTGTTTCT ATGCTAGAAA	1380
CTAAATCACA CAGCTTTCAC ATTGGTTGGC GCCGACTTCT CCACCGTCAT CTGTAAAGGT	1440
ACGGACGTAG TAGATAGACT TGATTCCCTT GTTAAAGGCA TAGTTACGAA GGATGGACAA	1500
GTCACGTGTC GTTTGTTTAT TTTCCCTCTT CCATTCGTAA AGGCCTTTTG GAATGTCAC	1560
GCGCATGAAG AGGGTGAGTG AAAGTCCTTG ATCCACGTGT TCAGTCGCAG CAGCGTAAAC	1620
ATCGATGACT TTACGCATAT CCATATCGTA GGCAGAAGTG TAGTAAGGAA TGGTTTCTGT	1680
AGACAAGCCA GCAGCAGGGT AATAGATTTT ACCAATTTTC TTCTCTTGGC GTTCTTCGAT	1740
ACGTTGCGTA ATCGGGTGGG TAGAAGCAGA AACGTCGTTG ATATAGCTGA TAGAACCATT	1800
TGGCGCTACA GCAAGGCGAT TTTGGTGGTA AAGACCATCT TCTTGAACCT TGTCGCGAAG	1860
TTCAGCCCAA TCAGCAACAC CAGGGATAAA GACATTTTGT AAGAGTTCTT TAACACGGTC	1920
TGATGTTGGA ACAAATTCAC CAGTTACATA CTTGTCAAAG TAACTTCCGT TAGCATAGTC	1980
TGATTTTTCA AAGTTGTGGA AGGTAATACC ACGTTCACGT GCAATATTGT TTGACTCTAC	2040
CAAGGTCCAG TAGTTCATAA GCATAAAGTA GATGCTTGTA AATTCAACAG ACTCAGGTGA	2100
ACCATATTCA ATGAGTTGTT GGGCAAGGTA GCTGTGCACT CCCATGGCAC CGAGACCAAA	2160
GGTGTGGGCT TGGCTATTTT CATGGTCAAT CGTTGGTACA GCTACGATAT GTGAACATATC	2220
TGTAACGAAA GTAAGGGCAC GAACCATAGC ACGGATAGAA CGACCAAAAT CAGGTGAAGT	2280
CATCATGTTA ACCACGTTGG TTGAACCCAG GTTACATGAA ACATCTGTTC CCATTGAAG	2340
GAATCTTGA GCATCGTTGA TCAAGCTTGG TTCTTGAAC TGAAGAATCT CAGAACACAA	2400
GTTACTCATG ATAATCTTTC CATCAACAGG ATTTGCACGG TTAGCCGTAT CGATGTTGAC	2460
TACATAAGGA TAGCCAGACT CTTGTTGCAA TTTAGAGATT TCAGTTTCCA AATCCCAGGC	2520
CTTGATTTTT GTCTTGCGAA TATTTGGATT TGCGACCAAT TCATCGTATT TTTCAGTAAT	2580
GTCGATGTAA TTGAATGGCA CACCGTATTC TTTTCTACA GAGTAAGGGC TGAAGAGGTA	2640
CATTTCTTCA TTTTACGAG CCAATTCGTA GAATTATCA GGTACTACAA CACCAAGTGA	2700

1211

TAGAGTCTTG ACACGTACTT TTTCATCAGC GTTTTCTTTC TTAGTTGAAA GGAAAGCGAT	2760
GATATCTGGG TGAAAGACGT TGAGGTAGAC AACACCAGCA CCTTGACGTT GCCCAATTG	2820
GTTGGAGTAA GAGAAGCTGT CTTCAAAAAG CTTCATAACA GGAACGACAC CTGAAGCAGC	2880
TCCTTCATAG CCTTTGATAG GTGCACCAGC TTCACGAAGG TTGCTGAGGG TAATTCCCAC	2940
ACCACCACCA ATACGTGAAA GTTGAAGAGC TGAGTTGATA GAACGCCCGA TAGAGTTCAT	3000
ATCATCCGTC ACTTGGATTA GGAAACAAGA TACCAACTCC CCACGACGAG CACGTCCAGC	3060
ATTCAGAAG GAAGGAGTAG CAGGTTGGTA GCGTTGGTGG ATGATTTTCAT TGGCAATATC	3120
GATTGCAACA GCTTCATTCC CATCAGCGAA ATAAAGGGCA TTGAAGAAGA CACGGTCTTC	3180
CATATTTTCA AGATAGTATT CACCGTCATT AGTCTTTAAG GCATATTGAT TGTAATAATT	3240
ATAAGCTGCC ATGAATGACT TGAATTGGAA GTTTTGGTCT TTGATAAATT GAGCTAATTC	3300
TTCCAAGAAC TCTGGACGGT ATTTCTTGAT AAAGGCTGTT TCGATGTAGT TGTGTTCAAT	3360
GAGGTAATTG ATTTTGTCTT TGATTGAATC AAAAACCATA GTGTTTGGAA CTACATTTTC	3420
TTTAAAGAAA GCATCCAAGG CTTCTTGTC TTTATGAAGC ATGATTTGTC CATTAACAGG	3480
ACGGTTAATT TCGTTATTAA GACGGAAGTA AGTCACGTCT TCAAGATGTT TTAATCCCAT	3540
AAAATTTCCC TTATCTAATT ACAAAGAAA GGCTTCTAAG TTAGCCCTAA AAGCAGTTTC	3600
TTCTGGATGA TGTACTAAGA TTATGCTAAT TGTTTCAGTT TTCTGGTTG GAAACCTGAA	3660
AAGACTTCAG TTGGTGTTTG GATAACAGGA GCTGCGCTAA AACCAGCTC TTAACTTGA	3720
TCGACGTACT CAGGTGCTC ATCAAGATTG ATTTACGAT AAGAGACATT ATTACTGTCC	3780
AAGAAACGCT TGGTCATTTT ACATTGGACA CAATTGTTT TAGAATAAAC GGTTACCATT	3840
GTGTAACCTC TCTTCAAAAT TTAATACTAT CTTAGTATAT CAGAAAATAA AATTTTGTCG	3900
GG	3902

(2) INFORMATION FOR SEQ ID NO: 213:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2456 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 213:

TATTGAAGCT ATTGTAGACT ACAAAGATAA GGATTTGCAG TTAGTAGGCG GTGAGACTCA	60
CTGATAACCT AAAAAGGATA GTCAATTATG CTTGTTTACT AACTATTAAC TATGCTAAAT	120

1212

CAATTGAGGT TGTTCACATA AAACCTCTATA TCAGAGAAGC CTGATATAGA GTTTTTCTCT	180
GCTAGTTTGA GGATTTTTTT GTAAAATAGA AAAAGTGAAG AGAGGTATGA AATGAGCAAG	240
AAAGATAAAA AAATCGAAAT TCAAGTAGCG GATGCCAAAG TTAATGTTGG TAAAGACAGT	300
TTTGAAGGTT ATACATTGAC TATCGGTAAA AAAGTTATCG GAGAAATTGC CGAATTAGAC	360
GGACAATTG CCATTATAAA GAATGGGAAT GTCGATAGTT TTTATAAAAA ATTGGAAAAA	420
GCTGTGGAAA TTTGATTGA AAATTATAAT TAGCAAAAT AAGTCTTGTT TTTTGAAAT	480
TTTCATGATA TAATAGTCCA TGTGATTGT AGGAGAGATA GCGAAGAGGC TAAACGCGGC	540
GGACTGTAAA TCCGCCCTT CCGGTTCTGGG GGTTCGAATC CCTCTCTCTC CATTTTCATTA	600
ATGGGGTATA GCCAAGCGGT AAGCAAGGG ACTTTGACTC CCTCATGCGT TGGTTCGAAT	660
CCAGCTACCC CAGTCTTAG GTAATAATCA AGATAGAAAG CAAATATCT TAGGGTATTT	720
TATTTTATA ATTGAAAGAC GTGAATGATA TGAACATGTC CTGCGGGTG CTTAGGAAAA	780
AAATTATAAG TATGTCAAGT TTAAGAAAAA CTTGATTGTT GGAGGATTTT TTAGATGAAC	840
GAATTGAAG ATTTGCTAAA TAGCGTTAGT CAAGTTGAGA CTGGTGATGT TGTAGTGCT	900
GAAGTATTGA CAGTTGATGC GACTCAAGCT AACGTTGCAA TCTCTGGAAC TGGTGTGAA	960
GGTGTCTTGA CTCTTCGCGA ATTGACAAAC GATCGTGATG CAGATATCAA TGACTTTGTT	1020
AAAGTAGGAG AAGTATTGGA TGTCTTGTA CTTCTGCAAG TAGTTGGTAA AGATACTGAT	1080
ACAGTTACAT ACCTTGATC TAAAAACGC CTTGAAGCTC GCAAAGCATG GGACAACTT	1140
GTTGGTCGCG AAGAAGAAGT TGTACTGTT AAAGGAACGC GTGCCGTAA AGTGGAAGTT	1200
TCAGTAGAAT TTGAAGGTGT TCGTGGATTT ATCCAGCTT CAATGTTGGA TACTCGTTTC	1260
GTACGTAACG CTGAGCGTTT TGTAGGTCAA GAATTTGATA CTAAAATCAA AGAAGTTAAC	1320
GCTAAAGAAA ACCGCTTCAT CCTTCACGT CGTGAAGTTG TTGAAGCAGC TACTGCAGCA	1380
GCTCGCGCTG AAGTATTCGG TAAATTGGCT GTTGGTGATG TTGTAAGTGG TAAAGTTGCT	1440
CGTATCACA GCTTCGCGC TTTCGTCGAC CTTGGTGGTG TTGACGGATT GGTTCAGTTG	1500
ACTGAATTGT CACATGAACG TAATGTATCA CCAAAATCAG TTGTAAGTGT TGGTGAAGAA	1560
ATTGAAGTGA AATCCTTGA TCTTAACGAA GAAGAAGGAC GTGTATCACT TTCACTTAAA	1620
GCAACAGTAC CAGGACCATG GGATGGCGTT GAGCAAAAAT TGGCTAAAG TGATGTAGTA	1680
GAAGGAACAG TTAAACGTTT GACTGACTTC GGTGCATTTG TTGAAGTATT GCCAGGTATC	1740
GATGGACTTG TTCACGTATC ACAAATTCA CACAAACGGA TTGAAAATCC AAAAGAAGCT	1800
CTTAAAGTTG GTCAAGAAGT TCAAGTTAAA GTTCTTGAAG TTAACGCAGA TGCAGAACGC	1860
GTGTCACTTT CTATTAAAGC TCTTGAAGAA CGTCCAGCCC AAGAAGAAG AAAAAAGAA	1920

1213

GAAAAACGTG CTGCTCGTCC ACGTCGTCCA AGACGTCAAG AAAAGCGTGA TTTCGAACTT	1980
CCAGAAACAC AAACAGGATT TTCAATGGCT GATTTGTTTG GTGATATCGA ACTTTAATCA	2040
AATTGAAAAT TCACAAAATC CTTTGTTTAC TAAACAAGGG ATTTTCTCG CTCTTTGTCA	2100
ACTGTAGTGG GTTGAAGAAA AGCTAAGCTC GAGAAAGGAC AAATTTTGTG CTTTCTTTTT	2160
TGATATTCAG AGCGATAAAA ATCCGTTTTT TGAAGTTTTC AAAGTTCCGA AAACCAAAGG	2220
CATTGCGCTT GATAAGTTTG ATGAGATTAT TGGTCGCTTC CAGTTTGGCG TTAGAATAGT	2280
GTAGTTGAAG GGTGTTGACA AGCTTTTCTT TATCTTTGAG GAAGGTTTTA AAGACAGTCT	2340
GAAAAATAGG ATGAACCTGC TTAAGATTGT CCTCAATAAG TCCGAAAAAT TTCTCCGGTT	2400
CCTTATTCTG AAAGTGAAAC AGCAAGAGTT GATAGAGCTG ATAGTGGTGT TTCAGG	2456

(2) INFORMATION FOR SEQ ID NO: 214:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10974 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 214:

AAATAGGATA TAGAGACATC CTTCTGATCT GCTTTTWACA AAGTCCAATT ATATGCGGAT	60
CTATACCTCC ACAATGTCCA TTATTATmCC TAACTATAAT ATGAGCCGAA AACACTATAT	120
CCTTAATGTC TCCATATCCA TCAGGGATAT TAATATTTAT TTTTCCACAA CTATATTGCA	180
TTGTAACCAT CTCCTTAAAC GACGCATTAT GATATTTGAT AGAGAAATTT TTATGAATAA	240
CTCAATAATT TTATAGTAAA TCATGCTTAT ATCTCAAAGA TACCTATTTT ATCTTGCTCTC	300
GACCTTCTCC AAAGAATTGC TATAATACTA TTACAAATCC ATCTGCACTA CACTTCAAAT	360
TTTAGCACTG TATAAAAACG TTTCAATACA CTAACCTCAA GAAAACTTCC ACTATTAAAT	420
GAAAAAATTG ATAGAGATAA ATTAAAAATC TATATTGAAA CTCATCCCGA TGCTTATTTG	480
ACTGAAATAG CTGCTGAATT CAACTGTCCT CCAACAACCTA TTCATTACGC TCTAAAGGCT	540
ATGGGATATA GTCTAAAAA GAGCCGTACC TACTGCGAAC AAGACCCAGA AAAAGTAAAT	600
CGGTTCCCTA AAGAATTGAA TCACCTAAGC TACCTGACTC CTATTTATAT TTATGAGACA	660
GGGGTTGAGA CCTATTTTGA TCTCGAATAT GATCGAGCCT TGAGCAGGCA GTTAGTCTCT	720
CTGGAAGAAG ATATAATTAT TTGAATTAAG ATCGAGACAA CGCACACCAG AGATTGCGAT	780
ACTGTTATAG AAGTACTAAT GCCCTTTTTT GTTTCAATAT ACTATGGCTC CGATGACCTA	840

1214

TAAAGATACG ATGACGAGTG ACTTTTTCGA AGCTTGCTTC CAAAAATTCT TACTACCTAC	900
TTTAGATACA CCATCCCTTA TCATTATGGA CAATGCAAGG TTTCACAGAA TGAACATGTG	960
TAAGGAGCAG GGCATAGACT GTTACCACTT CCTACCTATT CACCCGAGTA TAATCCCATT	1020
GAGAAAATAT GGGCTTACAT CAAAAACATC TCAGAATAAT ATTGTCAAAT TACGATGCTT	1080
TTCTTGAGGC ACTTTTGTCC TATTCTTGTT TCAGCCGACT ATACTCCGTT ATTGGGCAGC	1140
TACGGAACAG TCGATGGGAC GATGGGGGGA CATAAAAAA TCCTCCAGTT TTGTTTTTTA	1200
TAACAGTATA CTGGAGAATT GACAATCTCG GTAGATACCT CGTTATAGCG CGGTACTTA	1260
TTAGGCAGTT ACAAACAAC TGTGAACAGA AAACATTCCA GAGTCAGACA AGACTTTGGA	1320
ATGTTTTGGC TCTATAATTT CTGTAGTGGG TAATCCCACC CCAGGAATTA TAGGGTCGTT	1380
TCTTGTAGAA AAAAAGCCCC ATATGACCTA TAATGAAAAG CGTCTAACCA ACTCATTAGA	1440
AAGGGTTCAT ATGGAACAAC TTAAGAATAC CACAGATTTG CTCGGATTGG AAGACAAAAA	1500
TATCAAAATC TTGTCTGTTC TGAAATACCA AACCCTCTA GTCGTTCAGG CAAAGTTGGA	1560
TTCCCCGCT CCTCCTTGTC CTCATTGTCA AGGGAAGATG ATCAAAATACG ACTTCCAGAA	1620
AGCCTCTAAA ATTCGCTTC TCGACTGTCA GGGTTTACCC ACGGTACTGC ATCTCAAAAA	1680
GCGCGCTTT CAGTGCAAGA ATTGCTTAA GGTGGTCGTT TCTCAAACAT CCATTGTCAA	1740
GAAAAATTGC CAGATTTCCA ACATGGTGAG AAAAAAATC GCTCAGCTCC TCCTTGAAAA	1800
GCAGTCTATG ACTGAGATTG CCCACAGATT GCGGTCTCA ACTTCCACCG TCATCCGAAA	1860
ACTGAGGGAA TTAAAGTTTG AAACCGATTG GACCAAGTTG CCAAAAGTTA TGAGTTGGGA	1920
TGAGTATAGC TTCAAAAAGA GCAAAATGAG CTTCAATTGCC CAAGATTTTG AGTCCAAATC	1980
CATCCTCGCA ATTTTAGACG GCGGAACCTA TGCGGTGATT CGAAACCATT TCCAACGCTA	2040
TCAGAGAGAG GTTCGGGAGC TGGTCGAGGT CATCACCATG GACATGTACA GCCCTTATTA	2100
TCGGCTCGCT AAGCAACTCT TTCCAAAGGC GAAGATTGTT CTTGACCGCT TCCACATTGT	2160
CCAACATCTG AGCCGAGCTA TGAACCGAGT ACGAATCCAA ATCATGAACC AATTTGACCG	2220
AAAATCCTTG GAGTATCGGG CGCTCAAGCG CTTTGGGAAC CCTCGCTTTT TCGTTTCTAG	2280
GCTCGGGCTA AATCAGTCCA CTGGACTGAT TTACTIONACC AGTATAGCTT CAAGCTCTGT	2340
CAGAAACGAT TCTATCAGCC CACGTTTCGA ATGCACTTAA CCCATCGGGA AGTACGAGAT	2400
AAGCTGCTTT CTTACTCTGA GGGATTACAG GTTCACTACG AACTCTATCA ACTCCTGCTC	2460
TTTCATTTTC AAGAGAAGAA TGCCGACCAT TTCTTTGGAT TGATTGAGCA AGAACTGCCA	2520
ACGGTTCATC CGCTTTTCA AACGGTCTTT TGGACTTTT TAAGGGATAG AGATAAGATT	2580
ATCAACGCAC TTAAGCTGCC TTATTCCAAC GCTAAACTTG AAGCGACCAA TAATTGATT	2640

1215

AAGATTATCA AGCGCAAAGC CTTTGGTTTC CGGAACTTTA ACAATTTTAA AAAACGGATT	2700
TTGATGACTT TGAACATCAA AAAAGAGAGT ACGAATTTTCG TACTCTCCAG ATTGCAGCTT	2760
TTCGCCTACC CACTACACTT GACAAAGAGC CACTCTTTAT TCCATGGTAT CAAAGGCAAG	2820
ACTTGGTTTG GCATTGAGGT CCCAGCCTGC GAAGTTTCTT TTGTTCCACT CGCTGACGCT	2880
GGCATAGGCA ATCATACCTG CATTGTCTCC GCAGAGTCGC AGAGGGGGGA TGATAACCTT	2940
GACATCTGTG ATTTCCGGCTG CTAGGCGTTC TCTGAGACCT TTATTTGGCTG CCACACCACC	3000
TGCCACAACCT AGGATTTTAA CAGGATATTT CTCCAAAGCC TTCTTGGTTT TTGCCATGAG	3060
AATGTCCATA ACTGCTGCTT GGAAGGAAGC ACACAAATCT TCTGTAGACA GGCTTTCTCC	3120
CTTTTGCTCG GCATTGTGAT GAAGATTGAT AAAGGCAGAT TTCAAACCTG AGAAGGAGAA	3180
CTCCAGATTA TCTTCCTTAA TCATGGCAGC GGGGAAATCA TAAATATCCT GCCCCTGATG	3240
AGCCAGCTCG TCAATCTCAC GACCTGCAGG ATAGGTCAAG CCCATGACAC GGCCGACCTT	3300
ATCATAAGCC TCACCAACCG CATCATCAGC GGTTCCTCCA ACAATCTTAT AATCTCCTGC	3360
CTCCGAAACA TAAACCAACT CTGTGTGTCC GCCGCTGACC AAGAGGGCTA GCAAGGGAAA	3420
CTCCAAAGGC TCCACACTCT GAGCTGCCAT GAGGTGCCCA GCCATGTGAT TAACAGGAAT	3480
CAGTGGAAGT CCGTGAGCCC AAGCAAAGGC CTTGGCAGCT GACAAACCAA CTAGCAAGGC	3540
TCCGACCAAG CCTGGTCCGT AGGTAACCGC AACAGCTGTC ACGTCTCTCT CGGTAATCCC	3600
TGCTTCTGCC AATGCCTCCT CGATACAGGC TGTAAATGACC TCGACATGGT GACGACTGGC	3660
TACTTCGGGC ACTACGCCAC CAAAACGTTT GTGACTCTCA ATTTGACTAG CAATGACATT	3720
GGACAAGAGC TCATCGTCGT TTTTCAAGAC GGCAGACTG GTCTCATCAC AGGATGTCTC	3780
AAATGCTAAA ATATATCTAT CCTTCATCTA TTTCTCTCTT CATGATAATG GCGTCCTCGA	3840
CTGGGTATG GTAGTAGGCC TTTCGCTCAG CGATAACTGT CATCTTTTCT TTCTTGTAAG	3900
ATGCTTGCGC TCGTTGATTT GACTGTCTGA CTTTCAGGAA AATTTCTTGT TCTGTGCGCA	3960
ATTGAGCAAA CAAGGCTGAC GCAATCCCCT GACCCTGATA AGCTCCTTTG ACAGCGATTT	4020
GCAGGACTTC TGCTTCAAAA AGATTCTCCT GCACAGCTAG AAATCCAATC ACTTCTGCCC	4080
CATCATAAGC CAATGCATAC CAAGTCTGGT CTTGGGACAG ATCTGCTTGG ATTTGCTCCA	4140
GAGTCCAAGG ACTGACTAGG TAAACAGCTG CCATAACAGC GTAGATGGCT TGAGCTAGGT	4200
CAGGCTGTTG TTGAATTCGC TTGATTCTTA TCATAGGCGT TTAATGTAAG ACTCGCCAGA	4260
CTCGGTATGG TTCTTGAGCC AGTTTTCCTC AGCCTCGACT CGTTTGAGGT AATTCGGCAC	4320
AAAATCATGC AAGGAGTCTG CTTCTTGTC CCAGGCCAAA AGAGCTAGAT TAGCTGCATT	4380

1216

GGGCAATGTT TCTTTGTAAT CAGTCCTTGG CAAGTGTTTT TGAATCTGCT CAACAAAGGG	4440
GCCAACTTCT CCGACAAAGG TTACCTGACT AGTACCCTTG ACTTTTCTA GCACCTCTTC	4500
AAAAGATAGG TCGCTTCTG CCATGACAGG TTTGGCATT TCAATAAATC CTGCATAAAC	4560
ATTATTGCGA CGCGCATCCA TCAAGGGGAC AAACAAACCT TCTTGTGAT GGGGCACCAG	4620
AGCCAAGAGA CTCGACATAC CAACCAACTC GATGTTGAG GTGTGAGCTA AGGTCTTAGC	4680
AGTTGCTACC GCAATTCGCA AGCCTGTATA GCTACCCGGC CCTTCAGCTA CCACGATTCG	4740
GTCCAAATCC TTGGGTGTCC AATCCAAACT TGCCATCAAA AAATCGATGG CAGGCATAAG	4800
AGTAATACTG TGATTTTCT TAATATTAAT CGTCGTCTCG GCAAGAACCT GCTTATCCTC	4860
TAAATAGCC AGAGAAAGAG CCTTGCTGGA CGTATCAAAA GCTAATACTT TCATAACACA	4920
TTCTATCTT TTTGTCTGCT TACTATTATA CTACAAAAGC TGGCACATGG GAATTTCTT	4980
TGCCCCCAGA CAAGAGTGCC CTCACCTAAC TAAAAATAAT TAAAAAAAT GCTCACTTT	5040
CCTTTCTTT TCCGAATATA AAAGTGAACA AGAAAAAGG AGGAAAGTTC AATGACAAAT	5100
TTTGACATTC TTGACAATCA ATTTTATCC TTATCTGAAA ATGAATTATC AGATATGAT	5160
GGCGGTCTCG CTCCTTGGT TATCTTTGGA GTAGCAGTAT CTTGGAAGGC TATTGCAGGT	5220
GGAACAGCAC TTATAGGTT TGGTTGGCA GCTGGTTATT TTTAGGAGG AGATTAATAT	5280
GATGAAAGAT TTGAACAATT ATCGTGAAAT TTCTAATAAG GAATTGCAAG AAATCAAGGG	5340
TGGCTTTGGT GTCGGTGTG GTATCGCTTT ATTTATGGCA GGTATACCA TTGGAAGA	5400
CCTTCGTAAG AAGTTGGTA AGTCATGCTA GATAAGAAAC ACATTTTAG AAGGATAAAT	5460
TTTATTGTCT TCATCTCTTA CAGTTTGCTC AGCATTCTCA ATGATTGAA CATTACTACC	5520
ATCCCTTAC CATTCGATTT ATCTGTTGT ATGTGTTTAT TTTTATGCTT CAACTCTATT	5580
TTTGATCAGA ACAATGACTC CCATAAAAAT AATAAGCTTT GAAAATTCCA TTGTCATGTC	5640
ATGTTAGAAA AATGCAAAGA CCACCTCATC TTGATAGATG GGGTGAATT TTCGTGTCGT	5700
AAATCTACTA TCTCTACATT CCCAAACAAA AAACCCAGC ATAAGCAGG CATCTAAGCA	5760
TTTAATTCAA AGTAAATAC AAACCAAACG ACATAGGTCA CGAGGAGGAG AAAAGCGAG	5820
TAGAGAGTCA CAAAGGTCAT TTTCCACAAG AACTTGGTTT GTCGTCGTT CAGTTTGCA	5880
AATAGAAGAT TCCCCGATA AACGCAAGCA ACAAAAACAA TAAAAGCTAC CAAGCGAGCT	5940
CCGATAGCAA AAGCAAATAA GTTATACATA GGGCAACCTC CTTGACTTAA AATCTATATG	6000
GAATTATGAC AAGCAATAAA TTCACTTCC GTTATCAACA TAATACATTT TCTTTATTTT	6060
TGAAAACGCT TACCAAGAA ATCGTCCCCT AACTTTCTCG TTTCCGTCTT TACTAATTT	6120
TTCATTTTGT GGTATAATTG AAATAATTGT AACGAATCAA GGTCATCTA GACACAAAAT	6180

1217

GGAATGAAAT CAAGCAAATA TCTGCTAAAA GTTTGGAATA AGCTGACCTG TAAATAGAAA	6240
GGAATATATAT GATTTACAAA GTTTTATATC AAGAAACAAA AGAACGTAGC CCACGCCGTG	6300
AAACAACACG CACGCTTTAC CTAGACATCG ATGCCAGCTC AGAACTTGAG GGCCGTATCA	6360
CTGCTCGCCA ACTTGTCGAA GAAAATCGCC CAGAGTACAA TATCGAGTAT ATCGAACTCT	6420
TGTCTGACAA ATTGCTCGAT TACGAAAAAG AAAGTGGCGC CTTCGAAATT ACGGAGTTCT	6480
AATATGGCCT ACACTCTTAA ACCTGAAGAA GTCGGCGTTT TTGCCATCGG TGGTCTAGGA	6540
GAAATCGGGA AAAACACTTA CGGAATGAA TACCAAGACG AGATTATCAT CGTCGATGCT	6600
GGGATTAAAT TCCCAGAAGA TGACTTGCTT GGTATCGACT ATGTCATTCC TGACTACTCT	6660
TACATCGTGG ACAATATCGA CCGCGTCAAG GCTGTTTTAA TCACACACGG ACACGAGGAC	6720
CACATTGGTG GGATTCCGTT CCTACTCAAG CAAGCAAATG TCCCTATTTA TGCTGGACCG	6780
CTTGCCCTGG CTTTGATCCG TGGGAACTC GAAGAACACG GCCTCTTGCG CAACGCCAAA	6840
CTTTACGAAA TCAACCACAA CACCGAGTTG ACCTTTAAAA ATCTCAAGGC AACTTTCTTT	6900
AGAACGACTC ACTCTATTCC AGAGCCTTTG GGGATTGTCA TTCATACTCC TCAAGGGAAA	6960
ATCGTCTGTA CGGGTGACTT TAAGTTCGAC TTTACTCCAG TTGGAGAACC TGCGGACTTG	7020
CATCGTATGG CTGCGCTTG TGAAGAAGGC GTGCTCTGTC TCCTGTCTGA CTCGACAAAT	7080
GCGGAAGTAC CAACCTTTAC CAAGTCTGAA AAAGTCGTTG GTCAGTCCAT TATGAAGATT	7140
ATCCAAGGTA TTGAAGGACG TATCATCTTT GCATCCTTTG CCTCAAATAT CTTCCGCTCTC	7200
CAGCAGGCAA CAGAAGCTGC TGTTAAGACT GGACGCAAGA TTGCGGTCTT TGGTCGTTCT	7260
ATGGAAGGAG CCATTGTCAA CGGAATCGAT CTTGGCTACA TCAAAGCTCC TAAGGGAACC	7320
TTTATCGAGC CAAATGAAAT CAAAGATTAT CCTGCAGGAG AAGTTCTTAT CCTCTGTACA	7380
GGTAGTCAGG GTGAGCCTAT GGCAGCCCTC TCTCGTATCG CCAACGGAAC CCACCGTCAA	7440
GTACAATTAC AACCAAGTGA TACCGTTATC TTCTCTTCTA GTCCCATCCC TGGAAACACT	7500
ACTAGTGTC AACAAGCTGAT TAACATCATT TCTGAAGCTG GTGTCGAAGT TATCCACGGT	7560
AAAGTGAACA ATATCCATAC ATCTGGACAC GGTGGTCAGC AAGAGCAAAA ACTCATGCTC	7620
TGCTTGATTA AGCCAAAATA CTTTATGCCT GTCCACGGTG AATACCGCAT GCAAAAAGTC	7680
CACGCTGGAC TAGCAGTGGA TACTGGTGTT GAGAAGGACA ATATCTTTAT CATGAGCAAT	7740
GGCGATGTGC TTGCCCTTAC TGCTGACTCA GCTGGTATCG CAGGTCAATT CAACGCCCAA	7800
GATATCTATG TCGATGGAAG TCGTATCGGT GAAATGGCG CAGCTGTCCT CAAAGATCGT	7860
CGCGATCTAT CTGAAGACGG TGTGTTCTG GCAGTTGCAA CTGTTGACTT CAAATCGCAG	7920

1218

ATGATTCTAT CTGGTCCAGA CATCCTCAGC CGAGGCTTTG TCTACATGAG AGAGTCTGGC	7980
GACTTGATTC GCCAAAGCCA GCGTATCCTC TTCAATGCCA TTCGTATCGC ACTGAAAAAT	8040
AAGGATGCTA GCGTGCAATC TGTCAATGGT GCCATTGTCA ACGCTATTCTG CCCCTTCCTC	8100
TATGAAAAATA CCGAACGTGA ACCGATCATC ATCCCGATGA TCCTCACACC AGATGAAGAA	8160
TAAAGCAAGA AAACAGCCCC GTCCTCGGAG CTGTTTTTCT CTATGCTTTC TTTTGAGATT	8220
AAAACTCATA CTCAATGAAA ATCAAAGAGC AAAC TAGGAA GCTAGCCGTA GGTGCTCAA	8280
AGCACTGCTT TGAGGTTGTA GATAGAAGT ACGAAGTCAG TAGCCATACC TACGGCAAGG	8340
CGACGTTGAC GCGGTTTGAA GAGATTTTCG AAGAGTATCA ATAAAAATCG AAATCAGACT	8400
AGAAGGCTAA GCGAAAGCAT AACTTGAGTT AGCTCCCATG GTTCGGGAAA CTATGGGAGG	8460
CTGGAGATGA ATCAAAGCCA AGCTTTGAAC TCATTTCGTAA GAAGCCGACG ACGTATCATT	8520
TTGATTTTTG AAGAGTTTTA GAAATACTAC GATTTTTTACC TTCCAGATAC ACCATCAAAA	8580
TAGAAATATC TGCTGGGTTT ACTCCCGAAA TACGGCTGGC TTGGCCGATG GTTCTCTGGAT	8640
TGATGAGTTT GAACTTCTGA CGGGCTTCGG TTGCGATAGA ATCAATGTCA TCCCAGTCGA	8700
TATTGGCCGG AATGCGTTTT TCTTCCATGC GTTTCATCTT GGCAACCTGG TCCATGGCTT	8760
TGGAAATATA GCCTTCATAC TTGATTTCTG TTTCAATCAA TTCGATAATC TTGTCATCCA	8820
AGTCTTCTGC AGCTGGTCCG ATGAAGGCCA CCACATCTTG GTAAGAACT TCTGGACGGC	8880
GAAGGAATTC CTTGGCTGTC ACTGCATCGG TCAAGGGTTT GAAGCCCATC TCCTCAACCT	8940
TGGCATTGGT TTCTTGACT GGCTTGAGTT TGATACTGTC TAGGCGCTTC ATCTCATTAT	9000
CAAATTGATT TTTCTTGATT TCAAAACGAG CCCAGCGTTC ATCGTCCACA AGGCCAATCT	9060
CGCGTCCCAT CTCAGTCAAG CGCATATCAG CATTGTCATG ACGAAGAATG AGACGGTATT	9120
CAGCACGACT GGTCAAGAGA CGGTAGGGTT CAATGGTTCC CTTGGTCACC AAGTCGTGCA	9180
TCATCACCCC GATATAACCA TCACTGCGCT TCAAAATCAA TTCAGGCTTG CCTTGATTT	9240
TCAGAGCCGC ATTGATACCC GCGATAATCC CTTGGCCTGC TGCCTCTTCG TAACCTGATG	9300
TTCCATTTGT CTGACCAGCA GTGAAGAGAC CTGAGATTTT CTTGGTTTCC AAAGTCGCAC	9360
GCAACTGATG AGGCAAGACC ATATCATACT CAATAGCATA ACCTGTCCGC ATCATCTCTG	9420
CATTTTCCAA ACCTTTGATG GAATGCACCA AGTCACGCTG GACATCCTCA GGCAGACTGG	9480
TTGAAAGTCC TTGCACATAG ACTTCCTCAG TATTGCGCCC TTCTGGCTCA AGGAAGAGTT	9540
GGTGACGTTT CTTGTCCGCA AAGCGCACAA TCTTGTCTTC AATCGACGGA CAGTAACGAG	9600
GCCCCACTCC CTTGACCACA CCTGTAAACA TAGGCGCAGC GTGGAGGTTG TTTTGGATAA	9660
TCTCATGACT GGTACCATTG GTATAGGTCA ACCAGCATGG TACTTGGTCC TTGACATAAT	9720

1219

CCTCATCACG TGAAGTGAT GAGAAATGAT TAGGCACTTC GTCTCCTGGC TGAATTTCTG 9780
 TCACATCGTA ATTGATAGAA GAAGCCTTGA CACGTGGAGG GGTTCCTGTC TTGAAACGAC 9840
 CGATTTTCGAG ACCCAGTTCC TTGAGATTGT CAGCTAGGTT AATAGAAGCC AAGCTGTGGT 9900
 TAGGACCTGA TGAGTACTTG AGGTCTCCGA TGATAATTTC CCCACGGAGA GCAGTCCCTG 9960
 TCGTCACAAT AACAGCCTTA GCAGCATATT CTTGATGGGT GGCTGTACGC ACACCGACAA 10020
 CCTTGCCATC TTCCACCAA ATCTCATCAA TCATGGTTTG ACGAAGGGTC AGATTTTCTT 10080
 GGTTTTCAAC CGTCTTGC GC ATCTCCTTAG AGTAAAGTTC CTTGTACGCC TCGCACGAA 10140
 GGGCACGGAC AGCTGGCCCC TTCCCTGTGT TTAGCATCTT CATCTGGATG TAAGTCTTGT 10200
 CAATGGTTTT GGCCATCTCG CCACCGAGGG CATCGACTTC ACGCACGACA ATCCCCTTGG 10260
 CAGAACCACC GATAGAGGGA TTACAAGGCA TGAAAGCCAG CATTTCAATA TTGATGGTCG 10320
 CAAGCAGGAC CTTACAGCCC ATACGGCTAG CGGCCAAGGA AGCCTCAACC CCAGCGTGTG 10380
 CCGCACCAAT TACAATAATA TCGTATCTT CAGTAAATG ATAAGTCATG TTTCTCTCCT 10440
 ATTCTCAAG ATGAATGTGT CTTAGTTGGC CTTCCCAATC TGGTAGGGCT GTTTTTAAAA 10500
 AGACTGGAAC TAGCTGGATA TTCTGGAGCT TATCCAAGTC AATCCACTCA CAGGGCTGCC 10560
 TTTTCTCATC TTCTGCATG GTCAACGGGG CATCTTCAAG CAAATCCACC AGATAATGAA 10620
 ACTCGATATT GTGATAGGAA ACGCCGTCCA CTTCAAAACG ATTTTCAACC ACAAAGCTA 10680
 GCTGCCCAGC TTGAGCTTTG ACACCCAGTT CTTCTTCAC TTCACGGACT ACCGCGTCTT 10740
 CCGTGCTTTC ATTGACTTGA ATCGCACCTC CAATAGTGTA ATACTTGCCC TTGTCTTTGG 10800
 TAACTAGAAG CTTGTGATTT TGGACAATCA AGGCTGTAGC CCGAACACCA AAAACCGTAT 10860
 TGTCTACTTT TGTCGAAAG TCTTGTGAG TCATTCTTGT CCTTTCCCTT AAACGACACA 10920
 AAAACAGTCA AACTACAAA GAAGTGCAGG ACAAAAAGC CTGCAACATC CAGG 10974

(2) INFORMATION FOR SEQ ID NO: 215:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 987 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 215:

CCCGTTATGA TTATGGATAG CGCTTTCAAA TTTTAAACT CCTATCCCAT CCTTTATCT 60
 ATATAATAAG TGAAATATA ATAAGTCA AGTAACTGAA GTGAATTTTA TAAAAAATT 120

1220

ACAAGCCAAA TTTGTAAAGT TTACACTAAG CCGCTAGgCA ATCGTCTATC AGAATATCCG	180
TTTATTTGTC AATAATCCGA GAAAATCTTG CAACGCTTAG AAGTCTATAA AAACATACAA	240
CATTTATATG ACTTGCGAAT AGCAATCCTG CTAAACCTTT CCACACTCTA TCTATACAAT	300
CAAGATAAAA ACATGTGTAA GCAAATCTGC TACACTTTAC TGGAGGACGC CAAGAATAAG	360
AAAAGCTACG ATAGGCTTGC TATCTGCTAT GTCCGTATTG GGATTGTGAC AGACGATTCT	420
AAACTTATCC AAAAAGGGTT CTCCCTTCTG GAGCTGACCG AGGAAACTTC TATGCTGTCT	480
CATCTCAAAA AAGAAGTAGA GACCCATTAT CAACCAAAGA AATTATAAAA AAAGTCGAGG	540
GAGCTCCTCG ACCTTTTCAT AGAATCGCCG AACGATTTAA CGAGAAAGTA TGACTTTTAC	600
GTTTATCCCA ACTCAATTAT GACATTTTTT TCAAAAGTCA ATATATCTCA CTTTTTCAAC	660
GACAAGAAAG AGGCTGATAA TCTACCAACC TCTTATTCTG AACCCTATCAC TCCATCACTT	720
TTTAGCTTCA TTCGCTTTCT TAGCGACTGC AATCTGGTAT TCGACTTGGT CATTCCTCTT	780
ACCGGTACAA CCATGAGCAA TTGTAGTCGC TCCTATCTGA TCGCTATTTT CAACCAATTT	840
TTTAGAAATC AGAGGGCGGC TCAAGGCAGA TACCAAGAGA TACTTTTGTT CATAATAGGC	900
ATGTGACTGA TGAGCCACTA GCACATAATC TGTAGCAAAT TCGTCCTTAA CATCAATGAC	960
ATAAGATTCT ACTGCCCAA CCTTAAG	987

(2) INFORMATION FOR SEQ ID NO: 216:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2651 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 216:

CTGGGTCTTG TTCATAGTAG GTGTGGTtCT TTTTTCGAG TGTAGCCCAT AGCTTTGAGC	60
GCATAGTGGA TGGTAGTTGG ATGACAGCCA AAGTCAGAAG CTATTTCAGT CAAATAAGCA	120
TCTGGATTGT CAGTAAGATA GTTTTAAAGT CTATCTCTAT CAACTTTTCT TGGTTTTGTT	180
CCTTTTACTT GGTGGTTTAG CTCCTCTGTT TTCTCTTTTA GCTTTAACCA GCCATAAATG	240
GTATTACGTG AGATTGGAA AACGTGTGAT GCTTCTGTTA TACTACCTAT TCGCTCACAA	300
TAAGAGAGAA CTTTTTACG AAAATCTATT GAATATGCCA TAAGAAGATT ATACCACATT	360
GTGTACTATT TTTGGTTCAT TTTACTATAT TTTATAAGTT ATAGTGTAGC ATTCCAACCT	420
CAAAGCACTA TAAAGTAAAT TGAAACAAGA ACAATACAAA CAATTCTCGT AAACGGATTG	480
CAACCACAAA AAAGCAAGCA TTCACAAGAA TACTTACCTA TCATGGGAGG AACAACCGTT	540

1221

CCTCTTTTT ATTACTAAAA TTCAAAGAAT TCCAATGCTT TTTTCAAGAG CAAATCCGTA	600
TATCTTGAT CTTCTTGGGC TACTTCTATT TCCCCTGAA CTTTTCCTAA ATCATCTGTA	660
ATCACTCCAT CTACTCCTAA GTGAAGAGAT TTGCTGATAG CTTCTGAATC ATTGACAGTC	720
CAGACATAAA GTTCTGATC CGTTGTCCAT AGTTTGCTTA CAAAATATTC ATCCAAGGTT	780
GAGTACTCCA TAGTATATCC TGTCGCTCTT GTTTTAGGAA AGACAGAATT GTAGGGCATG	840
ATGAAATAAA CTGGTAGTTC GGCATCATAC TGTCTTACTT TTTGACAAC ATGGTAGTCT	900
AAAGACTGGA TTTGATGTCC ATAAATCTTG AGCTTTGCAG CATAACGGGC TAAAAAGCGG	960
TTTCATCATGT CTGGACTATC TTTTCTACTG GTTTTAATTT CAATTAGTAA TTTTGTACCA	1020
AGTTCGTTGG CTCGACTGAG ATAATCTTCA AAGCTTGAAA TTTTAGTCTG GTAGCCATTT	1080
TCAAAAATAT CAATCCCTTT AAGCTCCTCC AAGTTTAAGT CTTGAGGACT TTTATTGATA	1140
CCTGCTAGAT TTTTCAAGTT AGCATCATGC ATCATGACAA ACTGCCCATC TTTTGTTCCT	1200
TGCACTGCTG TCTCCACCAA GTCTGGTTTG AGTTGTGCTG TAGTTTCCAA GGACTCTACT	1260
GTATTTTGAA TCCCATTTGC ATTGGAACC CCTCGGTGAG AAATAAGTTG AGGTAGATGA	1320
ACCATGGGAG CCTCCAGATA AATATAACCT TCTAAGGCAA AGAAAAGACT GGCACAAGTC	1380
ATGACACCCC ATCGCACGAT GTGATCTTTT TCTCTCCTAG GAAGCATATC CAGCTCCTTT	1440
CCTGTCAAAA ATGAAACAAA TTTAACCAAA AAATAAGTCA GAGCCATATA ATAGAGATTT	1500
TTAATCACGA CAAAATTCOA AATACCAAGA ATCAGAGACT CTCTCTGAGT GATATCATCT	1560
ACCAAAGTTT GAGCCAATAA TAAAGGAATC AAAGGAAGAT AAATAATAA ATGTGCTTTG	1620
AGCAAGATGT AAAATAAATT CCAAGCATAA AAAGTAACTC TCTTCTTGGT TTTCTCCAAG	1680
CTAACATCA CTGCTTCTCG AACAGTCAGC TGATCATATA CAATCTTCGG AAGGGCAAAC	1740
ATCAATCTGA CAGAGACATA GAGAAAGATA AGAGATAGAA GTAGGATGCT CAGCCACCAC	1800
ATCCAATATC TATCTTCTAA ATAAGCTTGG ATAAACTCTG GAATGACGAT TTTATTAAAG	1860
TAATAAATCT TCAGCATTTT CCGTATAAAA GAAACAGCA TAGCTATATA GAAAAAGATA	1920
AACAAGGCTT TAGCGCAAGT TAGCTTTTTC ATAAATCCAA AACTTTCATG GAAAACCTTG	1980
CGGATATACT CAATTAGCCT TCGCTTTTCA TTATAGAGGA GATGACGAGC ACCAATAAAG	2040
AGGAGTCTTA TTTGAAAATA AGCAACCAGA AGGTTAATTA CAATCAAGGC TAAAAAGCT	2100
AGACTAATCA ATGGAGAATG AGTAAGGATG GCTAAGACAT TGTATAGGA AATAAAAAGA	2160
TAACCTGTCT GATCTAATAA GAAGCTAGCC AACCATGAAT TGAATGGTAC CCACAAATAC	2220
TCCACTATCA TAAAAATCAA GAAAAATAGA AAGAGGATTT TATCAAGATC GAGGTAAATC	2280

1222

TGTTTAAGAC CCAATTTTTT AGGTTTTTCA GGTTCATAG GCACTCCTAG TCAAATAATT	2340
GAGACAAGTC CAAGCCACCA AAAGGATTGT TTGATAAGCT ACTTCTGTCT TCTAACAATT	2400
CCCTAGCTTG ATCCGACTCT AAGAAGGATT CGTAAACACG CGCCGTCATC CGAGCATCCT	2460
CTAAACTATT ATGAGACTGA CCTTGAAATC CAAGAAATGA GGCAACAGTT TGCAATTGTA	2520
GATTGGCAAT ACCATGTAAA TCTGAACTCC GACGTTCAAA AGCTTCATCA TACAAATCCA	2580
CCTTGTA CTG TGGCTATAG TCTAAACCAT GCTCTGCTAA AATAGGTAAA TCACTTTTAG	2640
CAGCATTGTA G	2651

(2) INFORMATION FOR SEQ ID NO: 217:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5638 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 217:

CGTTATAATA AACTTGTA AAAATTAACA AAGGATATCG TTCCTTGAAA GCTATGGAGG	60
AAAATATGGC TGATAAAAA ACTGTGACAC CAGAGGAAAA GAAACTCGTT GCTGAAAAAC	120
ACGTAGATGA GTTGGTTCAA AAAGCTCTAG TTGCCCTTGA AGAAATGCGT AAATTGGATC	180
AAGAACAAGT TGAATACATC GTTGCCAAAG CATCAGTAGC AGCTTTGGAT GCCACGAG	240
AATTGGCTTT ACATGCCTTT GAAGAAACAG GACGTGGTGT ATTTGAAGAC AAAGCAACTA	300
AGAACTTGTT TGCCTGTGAA CACGTAGTAA ACAACATGCG CCACACTAAG ACAGTTGGCG	360
TTATCGAAGA AGACGATGTA ACAGGATTGA CTCTTATTGC TGAACCAGTT GGTGTTGTTT	420
GTGGTATTAC TCCAACAACA AACCCAACAT CAACAGCAAT CTTCAAATCA TTGATTTTAT	480
TGAAGACACG TAACCCAATC GTCTTTGCCT TCCATCCATC AGCACAAGAA TCATCTGCTC	540
ATGCAGCTCG TATCGTCCGC GATGCAGCTA TCGCAGCTGG TGCTCCTGAA AACTGTGTGC	600
AATGGATTAC TCAACCATCT ATGGAAGCAA CAAGTGCCTT TATGAACCAC GAAGGTGTTG	660
CGACAATCCT TGCAACAGGT GGTAAATGCCA TGGTTAAGGC GGCTTATTCA TGTGGTAAAC	720
CAGCTCTTGG GGTAGGTGCC GGAAACGTTT CAGCTTATGT TGAAAAATCA GCAACATTC	780
GTCAAGCAGC ACACGATATC GTCATGTCTA AATCATTTGA TAACGGTATG GTCTGTGCAT	840
CTGAACAAGC AGTTATCATT GATAAAGAAA TTTACGATGA ATTTGTAGCA GAGTTCAAAT	900
CTTACCACAC TTACTTTGTA AACAAAAAAG AAAAAGCTCT TCTTGAAGAG TTCTGCTTCG	960
CGGTCAAAGC AAACAGCAAA AACTGTGCTG GTGCAAAATT GAACGCTGAC ATCGTTGGTA	1020

1223

AACCAGCAAC TTGGATTGCA GAACAAGCAG GATTTACAGT TCCAGAAGGA ACAAACATTC	1080
TTGCTGCAGA ATGTAAAGAA GTTGGCGAAA ATGAGCCATT GACTCGTGAA AAATTGTCAC	1140
CAGTTATTGC AGTTTGTAAA TCTGAAAGCC GTGAAGATGG TATTACTAAG GCTCGTCAAA	1200
TGGTTGAATT TAACGGTCTT GGACACTCAG CAGCTATCCA CACAGCTGAC GAAGAATTGA	1260
CTAAAGAATT TGGTAAAGCT GTTAAAGCTA TTCGTGTTAT CTGTAACCTA CCTTCTACTT	1320
TTGGTGGTAT CGGGGACGTT TACAATGCCT TCTTGCCATC ATTGACACTT GGATGTGGTT	1380
CTTACGGACG CAACTCAGTT GGGGATAACG TTAGTGCCAT TAACCTCTTG AATATCAAAA	1440
AAGTCGGAAG ACGGAGAAAT AACATGCAAT GGATGAACT TCCTTCAAAA ACATACTTTG	1500
AACGTGATTC AATTCAATAC CTTCAAAAAT GTCGTGACGT TGAACGTGTC ATGATCGTTA	1560
CTGACCATGC CATGGTAGAG CTTGGTTTCC TTGATCGTAT CATCGAACAA CTGGACCTTC	1620
GTGCGAATAA GGTGTTTAC CAAATCTTTG CGGATGTAGA ACCGGATCCA GATATCACAA	1680
CTGTAAACCG TGGTACTGAG ATTATGCGTG CCTTCAAACC AGATACCATC ATCGCACTCG	1740
GTGGTGGGTC TCCAATGGAT GCTGCCAAAG TAATGTGGCT CTTCTACGAG CAACCAGAAG	1800
TGGACTTCCG TGACCTTGTC CAAAAATTCA TGGATATCCG TAAACGTGCC TCAAGTTCC	1860
CATTGCTTGG TAAGAAGACT AAATTCATCG CGATTCCAAC TACATCTGGT ACAGGATCTG	1920
AAGTAACACC ATTTGCCGTT ATCTCTGATA AAGCAAACAA CCGTAATAC CCAATCGCTG	1980
ACTACTCATT GACACCAACT GTGGCAATCG TAGATCCTGC TTTGGTATTG ACAGTTCCAG	2040
GATTTGTTGC TGCTGATACT GGTATGGACG TATTGACTCA CGCGACAGAA GCATACGTAT	2100
CACAAATGGC TAGTGACTAC ACTGATGGTT TAGCACTTCA AGCCATTAAA TTGGTCTTTG	2160
AAAATCTCGA AAGCTCAGTT AAGAATGCAG ACTTCCACTC ACGTGAGAAA ATGCATAACG	2220
CTTCAACAAT CGCTGGTATG GCCTTTGCCA ATGCCTTCCT AGGTATTTCT CACTCAATGG	2280
CCCATAAGAT TGGTGCACAA TTCCACACAA TCCACGGTCG TACAAATGCT ATCTTGCTTC	2340
CATACGTTAT CCGTTACAAC GGTACACGTC CAGCTAAGAC AGCAACATGG CCTAAGTACA	2400
ACTACTACCG TGCAGATGAA AAATACCAAG ATATCGCAGC CATGCTTGA CTTCCAGCTT	2460
CTACTCCAGA AGAAGGGGTT GAATCTTACG CAAAAGCTGT CTACGAACTC GGTGAACGTA	2520
TTGGGATCCA AATGAATTTT AGAGACCAAG GAATTGACGA AAAAGAATGG AAAGAACATT	2580
CTCGTAAATT AGCCTTCCTG GCTTATGAAG ACCAATGTTT ACCAGCTAAC CCACGTCTTC	2640
CAATGGTAGA CCATATGCAA GAAATCATCG AAGATGCATA CTATGGCTAC AAAGAAAGAC	2700
CAGGACGCCG TAAATAATTG TTTATCAGTC TAGAAGCAAG ACAAAAACTC AATTTGAGGG	2760

1224

AAAGATCCAG TAATTTTCT ATGATAAAG GCATCCTATC AAGGTTTTTG AACACCTGAT	2820
AGGATGCCTT TTTATGATAT TGAGGCCTTT TTGCCCTTTT TGA AAACTA GAATAGAAAC	2880
AAAATATATA ATAGATTGAA ACTAGAATAG TACATATCTG CTTCTAAAAC ATTGTTAGAA	2940
TTCGATTTGA CTGTCCTGAT CGATTTGTCC TGTTCCTATT TCATTTTGAT ATATAAAAAA	3000
TATAGTATAG TAGACTGAAT CTA AATAGT ACGAAACAAT TGCTAAAACA TTTATAGAAA	3060
TTAATTTTAC TTTTCTGATA GAGTTGTTCA CATCTTATTT CAATTCAC TA GTTTAATT	3120
TAAGAGTAGT ATTTACTAAG GCCCAATTAA AATCAAAGAG CAAACTAGAA AACGAGTGCC	3180
ATTCAGCTCA AAACACTGAT TTGAGATTGC AGATAAGACT AGCCCCCTCA TTAACAGATT	3240
TACGATAAAA CGATGACAAG GTGTGTTGCT TTTTGATTTC TAAAGAGTAT AATGATAGAT	3300
CTCTATAAAA TAAGTGCGAA GGAAATGAGC TTTTATAGTC CTTTCGTTTT AAAATACTAT	3360
CTCAGATATT CTTATATCGA CAAGAAGTTT TTGAGTCATT CCCTCATCAT ACATATTAAA	3420
TAAATAGTGG CTCATTCAAT TTTTCACTAG AATAATAAGC TAGTATAGTA AACTGAAATA	3480
AGATATAAAC AAATAAATTG GAGCTTAACA TCCATTTCCA GCAATTTTTT AGAACTACA	3540
GTGGACTATT CTAGATTCAA CATATTATAA AAAC TAGAGT AAAAGAAAAG GATTGGATCT	3600
TGTGTAATGC AGGATCCAAT CCTTCAATC ATTTTGTTCA ACTTTTGGAG GTTCTACAA	3660
TGTAGTCGTC ATTAATAAAG ACAGATGGGA ATGACAGTGT TCCTATTTAT TTTGATAGAG	3720
ATCGATGAAT TCTTTAGATA GCAACTGAAT AATCTCTGTT GAAGCCATTT GGTCTTCTGC	3780
ATGCATAAAT AGCAAGGAGA ATCCTATTTT TTCTCCAGTA GCTTCTTTTT GTATGAGATT	3840
AGAGTGAATC TTGTGCGCTT CTAATAAGGA GTCTCCGCT TCTTCACTT TAATTTTCGC	3900
TTCTTTTAAA TTTCTGCCT TAGCTAGTTG GATGGCTTCA ATAAAGGATG ATTTGGCTGC	3960
TCCACTATTG GCAATGAGCT GAAACAGAT ATATTCCATT TCTTCTGTCA TCTTATTTCT	4020
CCTATCCATG CAAGTGCTTG TTCCAGAACT TTTGCTCCAT TCATCATTCG GTAATCCCGC	4080
ATATCAATGG TATCTACAGG GATATTTCCT GCAATTTCTT TCACAGCAAG TAACTCATAA	4140
CGAATTTGTG GCCCAATTAG AATGACATCT GCTTCATGGA TATTCTTTTT AGCTTCTGTC	4200
ATTGATTTTG CTGGATAGA GATTTCAATC CCACGTTTCA TCGCACTTTG TTGCATTTTT	4260
TTAACAAGCA TACTTGTCGA CATTCCCGCA TTACATACTA ATAAAATTG TTTTATAATC	4320
TTAACCTTCC ATTTCTTGT CAACAACCTT GTCATTAACT TTGATAAATG GAATGTATAG	4380
AAGAATCCA AGTGCAAAGA TGATGAATTG AACTAGAACT GCTCTCACGT CCCCTGCTGT	4440
TGCTAACCAT GCATTTAAGA ATACTGGTGT AGTCCAAGGA ACTTGATATA ATGCAGGACT	4500
CATGAATTCT GTAAGTGTG CTAAGTAGCT GATTAAAATA CCAAGGACTG GAACTGTGAT	4560

1225

AAATGGAATA GCTAATGAAA TGTATATAAC GATTGGGTAA CCGAATAATA CTGGTTCATT	4620
GATATTGAAG ATACCAGGTC CAAAAGATAA TTTAGCCACG TTTTGTAGAGA CAGCATTGCCG	4680
ACTCACTAAG AATGTTGCTA TTAATAAACA TAATGTAGAT CCACTACCAC CCATTAAAGC	4740
GAATGTTTGT ATTTGTGATA GGTGTGATGAT GTGTGGAATG GCTGTGCCAT TATTTGCTGC	4800
AGTGATGTTT TCAGTAATGT TAATTAATAG TAATGGTTCT AGGATGGCAC TGTAAATAAC	4860
TGCTTGCTGA ATACCAAATA GCCATAACAT ATTTCCTAAA GAGTAAATAA TAATGACCCC	4920
GATTAAGCTT GTACCAATAT GACGAATTGG TTCTTGAATA AAGATTGTAA TGATTGAGAT	4980
TAAGTTCATT CCAGTTATAT TGAATAATAA TGCTGAAACA ACCCCAAATA AGGAGATGAC	5040
GGTCATGACT GGAAGTAATA CGCTAAATGA TCTACTAACA GCTGGTGGA TATTTTCACC	5100
AAGTTCATT TGTAAGCTT TAACGTTGA TAATCAATG AATAATTCTG TTGCAATAAT	5160
CGTACGATAA CCCCGCGGAA CATTGCGCCT GTACCTGTGT TGTGGAATGA AAGAACACCT	5220
GAAATGTTTA CCGCATCTTT TGCTCCGTCA GGAACCTACG AACTGTATT TGGCATCATC	5280
ACAATTAAAG AACTAATGA TAGCATTGAT GCTGCTAACG GGTTTTCGAA ATCTCTGTTT	5340
TTAGCTAAGA AATAACCAAC CATTACAGCA ATAATCATAC CTGAAATACT TAAAGTACCG	5400
TTTGCAATTG TTATTCCCA ATATTGGAAT CTTGTTAATG TATCCCCTTG GAAAATCCAC	5460
TTAAATACCG TGTGTGTTCA AAGAACGATT AAACCTGCCA AAATATATAA TGGCATTACT	5520
GTTACGAATG CATCTCTTAG GGTTTTAA TGAATTTGGT TCCCTAGTTT ACCAGCAAAG	5580
GATGGCAAAA AAATTTTTTT GGGGGGGGG GTTATTAAAC CCCCTTTTTT AAAAAAAA	5638

(2) INFORMATION FOR SEQ ID NO: 218:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4745 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 218:

CCGGAAGCTG TTGCCCTTGG AACTCCAAAT GAAGAAACAG CCTTTGTCTT GAACTATTTT	60
GGTGTGGAAG CACCACGTGT TATCACTTCT GCCAAAGCAG AGGGGGCAGA GCAAGTTATC	120
TTGACTGACC ACAATGAATT CCAACAATCT GTATCAGATA TCGCTGAAGT AGAAGTTTAC	180
GGTGTGTAG ACCACCACCG TGTGGCTAAC TTTGAAACTG CAAGCCCACT TTACATGCGT	240
TTGGAGCCAG TTGGATCAGC GTCTTCAATC GTTTACCGTA TGTTCAAAGA ACATGGTGTA	300

1226

GCTGTGCCTA AAGAGATTGC AGGTTTGATG CTTTCAGGTT TGATTTCAGA TACCCCTTCTT	360
TTGAAATCAC CAACAACACA CCCAACAGAT AAAATCATTG CTCCTGAATT GGCTGAATTG	420
GCTGGTGTGA ACTTGGAAGA ATATGGTTTG GCAATGTTGA AAGCTGGTAC CAACTTGGCT	480
AGCAAAATCTG CTGAAGAATT GATTGATATC GATGCTAAGA CTTTGAACCT CAACGGAAAT	540
AATGTCCGTG TTGCCCCAAGT GAACACAGTT GACATCGCTG AAGTTTGGGA ACGCCAAGCA	600
GAAATTGAAG CTGCAATGCA AGCTGCCAAC GAATCAAACG GCTACTCTGA CTTTGTCTTG	660
ATGATTACAG ATATCGTCAA CTCAACTCA GAAATCTTGG CTCTTGGTGC CAATATGGAC	720
AAGGTGGAAG CGGCTTTCAA CTTCAAACCTT GAAAACAATC ATGCCTTCCT TGCTGGTGCC	780
GTTCACGTA AGAAACAAGT GGTACCTCAA TTGACTGAAA GCTTTAATGC GTAAGATTTT	840
GGGTGTCAGC TCAAAATCGG AAAGTCTAGT TTGCCTTATA TCGCAAGGAG TTTCGGCTCC	900
TTTTTTCTAG GAGTGAAGTA TGTTAGAAAA TGGCGATTG ATTTTGTGA GAGATGGGTC	960
AGACATGGGA CAGGCCATCC AGACTTCCAC AGGTAACAT AGCCATGTTG CCATTTATTT	1020
GGATGGGATG ATTTATCATG CTAGTGGA CAAGCTGGTGT GTCTGTCAAG AACCGGCAGA	1080
CTTCTTTGAG TCCAATCATT TATACGACCT CTATGTTTAC CCAGAAATGG ATATCCAGTC	1140
GGTGAAGGAA AGAGCTTGCA AACATCTTGG AGCACCTAC AATGCTTCIT TCTATCCAGA	1200
TGCAGCTGGT TTTTACTGCT CCCAGTATAT AGCAGAAATC CTACCTATTT TTGAAACTAT	1260
TCCTATGAAA TTTGGAGWTG GGGAGCAGGA GATTAGTGAT TTTTGGAGGG AGTATTACAT	1320
AGAACTAGGT CTGCCTGTTC CTCTGAACCA AGCTGGTACC AATCCTAGTC AGTTGGCAGC	1380
ATCGCCTCTG TTACAATGTA AAGAAAGGAA TCTTCATGAT TCAGATTTT AATCCATCTC	1440
GTTTGACGAG ACAGCCATTT TTGGAGAATT GATCCGCTAT CTGGATCAGT ATGAGGATGT	1500
GATTCTACGG GAAATTAAGG CTCAATTTCC AGATGTTGCA GTTGATAAAC TCATGGAAGA	1560
GTATATAAAG GCAGGCTTGA TTCTACGTGA AAATAAGCGC TATTACCTCA ATTTTCCTAC	1620
GCTTGAATCA CTTGATAGTC TTGAACTGGA TCAAGAGATT TTTGTCAGAG AAGCTAGTCC	1680
GGTCTATCAA GCCTTGTTGG AGCAGAGTTT TGAGACGGAA TTGCGCAATC AAATCAATGC	1740
AGCTATTTTA GTTGAAAAGA CGGACTTTGC GCGCATTAAG ATGACCCTGT CCAATTATTT	1800
TTACAAGGTC AAACAGCAGT ATCCTTTGAC AGAAAAACAG CAGGAGCTCT ATGACATTTT	1860
AGGAGATGTT AATCCTGAGT ATGCCCTCAA GTATATGACG GCTTTTTTGT TGAAATTTCT	1920
CAAAAAGAC CAGCTTATGC AGAAATGCCG TGATATCTTT GTGGACAGTT AGGTTGTCTT	1980
AGGCTATATT GTGCAAAATG AAGATGGAAG GTATGAGTTG GCTATCGATT TTGATAAGGA	2040
GAGGTTAACT TTCTACTTAG CGTGATTTCT TGTTCCTGAG TACATTGTTT GACTTTCCTT	2100

1227

AGTATTCGGT ATAAACTATA TGTAACCGGT AACACATATC GGAATAAACT AAAGGAGACA	2160
ATCATATGTC ACTTGAAAAC AAATTGGAAC AAGCAACAGG CGCTGTCAAA GAAGGTTTGT	2220
GTAAAGTTAC TGGAGACAGC AAGACAGAAC TTGAAGGAGC TGTTGAAAAA ACAGTTGCTA	2280
AGGCAAAAGA CGTTGTAGAA GACGCAAAAG GTGCTGTAGA AGGTGCCGTT GAAGGTTTGA	2340
AAAACGTTTT TACTAAAGAA TAGGAAAAA TCAAGGGTTT CATTTTCCCT TGATTTTTTC	2400
TATTCTTATA AATAATTTTC TGCACGGCT GTATCTCCTG GGTAGGATTC TTTCTTGCCC	2460
TGGATGATTT GGTAACAATC GGCTCCCTTA CCCGCAATAA TAACTGCATC TAATTCGTGA	2520
TTTGTGATAG CCATTGCCGC CTTGATGGCT TCTTGGCGAT CCGCAATCTT TTCAACAGGA	2580
TGATTGATGT AGCTACTAAT TTCATCTGCA ATGGCCATMG GGTCTTCATA GTTAGGGTCA	2640
TCAGCAGTCA GAAAGACTTG AATCTCAGGG TGTGATTGA GGAGGAGGCC AAAGTCCTTA	2700
CGACGACTTT CTCCCTTGTT TCCTGTTGAT CCCAGAACCA GAGCAATCTT TCCGGTTTGA	2760
TGAGTTTCAA CCACATTGAT GAGTTTTTTC AGACTATCCC CATGTGTTGGC ATAGTCGATG	2820
AAGACCTTGG CTCCATTTTT CTGAGTGAGG ACTTCCATAC GACCAGGAAC GCGGTTTGA	2880
GCGATGCCTT TTTTGATGTC CTCAAGACTT GCTCCGAGAC GGAGACAAGC AAGTCCAGCA	2940
GCAACTGCAT TTTCTTGGTT GAAGTTGCCA ATGAGTTGAA TATCATAATC TCCAGCGAGT	3000
TTACCCGTAG CTGAAAAGCT AAAGGCTTTC CAATTCTCGA TTTGGTTATC AAATTGGCTA	3060
CCATAGAAAT CATGGTCTTG ATCTTCAACC TGTCTTTTCA AGACTGAGAA GTGGTCCATG	3120
TCAGTGTAA TGATGACTGC TCGGCTCTTT TCCATCAAGA GACGCTTGTG GTAGAAATAG	3180
TCTTCAAAGC TAGGGTGTTT AATCGGGCCG ATATGGTCTG GGCTGATATT TAGGAAACT	3240
CCCACATCAA AGGTTAGACC ATAGACACGT TTGACCAGAT AGGCTTGACT GGAGACTTCC	3300
ATGATGAGGT GGTACGGTC ATTTTGCACA GCCTGATTCA TCATGTCAAA GAGGTCAATA	3360
CTCTCAGGGG TTGTCAACGC TGACTTAAAG AAAGTCTCGC CATCAAGAGT TGTGTTTCATG	3420
GTGACAACA TAGCAGGTCT ATGCCCTTGA GATAAGATGT TATAGGCGAA ATAGGCTGCT	3480
GTTGTCTTAC CCTTAGTACC AGTAAAGCA AGGAGTTTGA GTTTTTCCTG TGGATTACCA	3540
TAGAACTCCA TGGCAATCAA ACTCATGGCT TTCTTTATAT CGTTCACAAT GATGACAGGG	3600
ATACCGACTT CGTAGTCCTT TTCAGCTACA TACCAAGCTA ATCCTTGTGT TATAGCAGAA	3660
AGAAGGTATT CTTTTTTAAA GGCAGCGCCT TTTGCGAAAA AAAGAGTGTC TTCTGTACT	3720
TTTCGGCTGT CGTAGCTGAT GCTATCAAAA ATAACCTTGC TGTAGTTGTA GTGGTAATGA	3780
CCTTGGTCAA TAATTCGCG AAAAAGGCCA TCTTTCTTTA AAATATCTAA TACGGTTTCA	3840

1228

ATCTTAATCA TACTTTCTAT TGTAACCGA AAGTCGTAAA TTTACAAGTA ACAAGGAAAA	3900
GTTTATAATG GAAGATAAGG AGTTTTCCT AGTTATCAAA ATTGAATGAG GAATCTATGT	3960
CGCACGAAAA CAATCACCAG CAGGCCCAGA TGTTACGGGG GACTGCTTGG CTAACGGCTA	4020
GTAACCTTAT CAGTCGCCCTA CTCGGGGCTG TTTACATTAT CCCTTGGTAC ATCTGGATGG	4080
GGGCTTATGC AGCTAAGGCA AATGGTCTCT TTACCATGGG TTACAATATC TATGCTTGGT	4140
TCTTGTTGGT TTCAACAGCG GGGATTCCAG TTGCGGTGGC CAAGCAAGTT GCCAAGTATA	4200
ATACCATGCG AGAAGAAGAG CATAGCTTTG CCCTGATTCG GAGCTTCTTA GGCTTTATGA	4260
CAGGACTAGG CCTGGTTTTT GCTTTAGTCT TGTATGTCTT TGCTCCTTGG CTAGCAGACT	4320
TGCTCTGGCGT GGGCAAAGAC TTGATCCCAA TCATGCAAAG CTTGGCTTGG GGAGTCTTGA	4380
TTTTCCCGTC TATGAGTGTT ATCCGAGGAT TTTTCCAAGG GATGAATAAC CTCAAACCCT	4440
ATGCCATGAG CCAATTTGCT GAGCAGGTCA TTCGTGTTAT CTGGATGCTC CTAGCAACCT	4500
TTATCATTAT GAAGCTCGGT TCAGGAGATT ATCTAGCAGC CGTTACCCAA TCAACCTTTG	4560
CTGCCTTTGT CGGTATGGTA GCCAGTTTGT CAGTCTTGAT TTATTTCCCT GCCCAAGAAG	4620
GTTCACCTCA AAGAATCTTT GAAACAGGAG ATAAGATTAA CAGTAAGCGT CTCTTGGTTG	4680
ATACCATTAA GGAAGCCATT CCTTTTATCC TGACAGGGTC TGCCATCCAG CTCTTCCAGA	4740
TTTTG	4745

(2) INFORMATION FOR SEQ ID NO: 219:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1900 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 219:

CCTGATTGAC CTTATAATAA GGAACAAAAC ACAATGCACT ACCTTTTCAA CAAAAGAGTT	60
GCTGCTTGAT TAAAACCATC ACACCAGTTA TACCATTTTG CTTCATACCC ATCTTGAGCT	120
AGGATACGAT CTTCTAAATC AAAAACAGAG TAAATCTTTC TTTCCTCGCA AGCTTGCGCA	180
TAGAGATGAT ATAGTTCATC ACCACCATCT CTATCCCACT CAGCAGAAAT CGTATCCCGA	240
CCTGCCAATA AAGCCTGATA AGCCCTGTGA TGCCCATCTG TAATCAGCAA ACAATCTCCA	300
AAGGCAAGAA TACTGATTGG ATCGACTTGG ATTGTTTCTG CCGACTGGTA AAGCATCTGA	360
ATATCTTGCA ACTTCTTTTC TGATAAATAT AGTTGAGTCA GATGAAGATC TGCTATATTG	420
ACTTTCATTT CTTTCTCCTC AAGGGAATTC GATACTCACT TCTGTTTGCC TTTAAATCGC	480

1229

CATTGGAAGC GGAgCTTGTC ATAAAAGGGA AACTCGATAA ACAGGACTCC CAAGCCCACA	540
CAGAGACTGG CAAGGACGTC TGATGGGTAA TGAACCTCCA GATAGACTCT TGATACCAGC	600
AACTGACTA GGTAGAGGCC AAGGACGATT TGTACGATTT TTCTCCAGAC CTGATCTTTA	660
ATCCGCTGAC TAAGAATAAC AATCAAAGTC CCTACCATCA GCGTTACAGC TAGAGAATGC	720
CCACTTGGGA AGGAAAATCC CTTCTCCTCC ACCAGATGTA AAATAGCTGG TCGTGGGCGC	780
TGGTAGATAT TTTTAAAGGT CACGATTAAA AGACCTGCCA AAGCCAGATT TCCCAGCATG	840
AAGAACTTT CTATCTTCCA TCGCTTACGA TAAAAGACAA AAGCTGTAAT GACAACCCAA	900
GTGATAATCA CTGGGATATC AATCAGACGT GTGAGGGCTC GAAAAAGAAT AGTCAAATAA	960
TCTGGTAAGT CTCCTCGAAT GGCAGTCTGA ATCGATTGGT CAAAATTGAC CAACATTTCA	1020
GGGTAAATT TGACCATGTA GCCAAGAATA ACGAAAAGTA AAAGGGCAA ACTGCCCTTC	1080
ATTAAAAATG TTTGTTTATC TCTCATAATG TTTTAAGGTT GGTTCAGA GAACATACAA	1140
CAACCAGAAAT GAAACGGAAA AGATAACACC TTCAATCAAG TTAAGGTA ATACCATGGT	1200
CATTAGGTAG TTGGAAAGTC CCAAAATTTT TCCAATATCA AAGTTAGCAA ACTTAGCGTA	1260
CAAAGGAACA GCATAAACAT AGTTGAGAAC CAACATGGCC AAGGTTAAAC CAATAGTTCC	1320
AGCTAGAGAG CCTAGTAGGA AACGAAGGGT TGTCCGTTCC TTTTTCCAA TCAAAGCAA	1380
TACGATGACA AAAACTCCCA AAGCTACGAT ATTCATCGGC AAACCAATGT AAGTATTCAC	1440
TCCTTGGCTG TTAAGAAGCA ATTTCAAGAG TGAGCGAAGC AAGAGCACTC CTAGAGmCsc	1500
AGGCAAATCC ATGACCACCA GACCACAAG GACTGGCAAG ATACTAAATT CGATCTTGAG	1560
GAAAGATGCC GCTGGTAAAA GCGGAAAGTC AAAGTACATC AGCACAATG AGATGGCTGA	1620
TAGAATTGCA ATGGTCGAAA GTCGACGTGT GTTTGTCATA ACAGGTTCCCT CCAATTTTCT	1680
ATAAATCAG AAGAAGTTGG AAAGGATTCC TCTATCTATT CTCACTTTTT ATATCCCAA	1740
AGTTCCCTCT TACTCTATTA AAGAAAAACA AAGCAAGTGG TTACAATCCG GCTATAAATC	1800
TATCAAAACA GACAAGGCTA TTCTTTCGTC TTCTCCCATC CAGACTATAC TGTCGGTTGT	1860
GGAATCTCAC CACATCACGT TGCCTCACG GACTTCTTTA	1900

(2) INFORMATION FOR SEQ ID NO: 220:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4692 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1230

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 220:

GGTTTCCAG CAGGAGCTTC TCCTTTATCA GAATGACCAT CCCATCTGCT CACGATAGAT	60
GAATAATGAT ATTTTACC ATGATAGTAA TTTGAAAAAG CCTAACCACC TCCTGAACCT	120
TCTCCATATG TCCATACTCC TCCATCTGGA TATTATACAG CAGCTGATGC AGCTCCCAAT	180
AATGTAAAC TTGAAATAAG AGCTAGAGCA AGTAATCTAT GTTTTTCGT TTTTATTTA	240
TTTTTCTTT CAAAAAAGC ACACCTTGAG CAACAATGCA ACAAATAAA TCCTCCTCTC	300
TCTTTTATTG AAACCGCTTT CTTATGTGAT AAGAATAACT TTTTATLAT TTGTGTCAA	360
GGAAAAATC GAATTTTTA GATATTTTAC TATATTACCT CTGTGAATAA TATTATATAG	420
TAGTTTATT TCAAAATAAT ATGCAACCAG TACTAACCA ATATAAATA GATGCCATTA	480
ACGAATTTTA TTCAAGTTT TCCCATTCAT ACTATACAAG TAAAAGAGAT GGTGTTAACT	540
AAAAAGCAAT TCAAACTATT GTAAAATCC TAGCAAAAAG AGAGCCGAAA CTCCTTTTTT	600
TATCTTCTTT TACTTTTTT GACTGGCATG AGTGTGATGT CTCTAACT AAAGTAAGCT	660
AGGATCAACA TGGCTATTGC TAGGAATATT TCTGTTGGTA ATTGAAAAAT TTTCAGAAAA	720
GATAGAACCA ATAAATCAA GAGTGCCACT AAAATACATA CCATAGCGAC GATATTGACA	780
GTCCCTTTAA TGCTTCTGG TGTGCAAAAT ACATAGAGTA GGAGCAGTAA AATCCTAGG	840
ACTAAATAGA CCATCTTCT CTCTTCTAG CTCTTATTCA GCTGATTTTT TCTTCTTGT	900
AGCTTCTCA CGCTCTGCTT TGTTAAGGAT TTGTTTACGC AAACGGATAG ACTCAGGCGT	960
TACTTCCATG TACTCATCGT CGTTCAAGAA CTCAAGAGAC TCTTCAAGTG TCAAGATACG	1020
AGGCGTCTTG ATAACAGCTG TTTGGTCTT AGTAGCTGAA CGAACGTTGG TCATTTGTTT	1080
TGCCTTCGTG ATGTTAACTG TCAAGTCATT TTCACGAGAG TTTTCACCGA TGATCATTC	1140
TTCATAAACC TCAGTACCTG GGTGACAAA GATCGTACCA CGTTCTTCGA TAGACATGAT	1200
TGAGTAAGTT GTAGCCTTAC CAGCATCGAT AGAAACAAGG GCACCACGGT GACGTCCACC	1260
AATTTCCCTT GGAATCAATG GCAAGTATTG GTCGAAGGTA TGGTTCATGA TACCGTAACC	1320
ACGAGTCATT GATAAGAACT CAGTTGAGTA TCCAATCAA CCACGCGCTG GAACAAGGAA	1380
GACCAACGA GTTTGACCAT TACCAGTTGA AATCATATCC AACATTTTAC CTTTACGTTT	1440
AGAAAGGCTT TGGATAACAG ACCCTTGGA TTCTTCTGGA GTGTCGATTT GTACACGTTT	1500
AAATGGTTCA CATTTAATAC CGTCGATTTT TTTTACGATA ACTTCTGGAC GAGATACTTG	1560
AAGTTCATAG CCCTCACGAC GCATTGTTT GATAAGGATT GACAAGTGCA ATTCTCCACG	1620
TCCTGAAACA GTCCATTTAT CTGGTGAATC AGTTGGGTCA ACACGAAGGG AAACGTCTGT	1680
TTGCAATTCT GCCTGCAAGC GTTCTTCCAC CTTACGAGAA GTTACCCATT TACCTTCTTT	1740

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ACCAGCAAAT GGTGAGTTGT TGACCAAGAA AGTCATTTGA AGAGTTGGCT CATCGATGTG	1800
TAGGATTGGA AGAGCTTCTA CTGCATCTGT CGGAGTGATG GTTTCACCGA CAAAGATGTC	1860
TTCCATACCT GAAACGGCAA TCAAGTCACC CGCTTTGGCT TCTTGGATTT CACGACGTTT	1920
CAAACCAAAG AAACCGAAGA GTTTTGTAAC ACGGAAGTTT TTAGTTGTAC CGTCAAGTTT	1980
AGAAAGGGTA ACTTGGTCCC CAACCTTAAC TGTACCACGG AAGACACGAC CGATACCGAT	2040
ACGTCCAACG AAGTCATTGT AGTCCAAAAG TGACACTTGG AACTGCAAAG GCTCATCTGA	2100
GTTATCTACT GGAGCTGGGA TATGGTCGAT AATCGTGTC AAGATTGGTG CCATAGTCGC	2160
TTCTTGGTCA GCTGGATCAT CTGACAATGA AGAAGTTCCG TTGATCGCTG AAGCATAAAC	2220
CACTGGGAAA TCAAGCTGGT CGTCATCTGC ACCAAGCTCG ATGAAAAGTT CCAAGACTTC	2280
ATCCACTACT TCTGCTGGAC GAGCTGATGG CTTATCGATT TTGTTAACAA CCACGATTGG	2340
GACAAGGTCT TGTTCCAAGG CTTTTTTCAA TACGAAACGA GTTTGTGGCA TGGTTCCTTC	2400
ATAGGCATCT ACGACCAAGA CAACACCGTC AACCATTTTC ATGATACGCT CAACTTCTCC	2460
ACCAAAGTCC GCGTGTCTG GTGTGTCCAT AATGTTGATA CGAGTTCCGT TGTAGCAAC	2520
GGCAGTATTT TTAGCAAGGA TGGTAATTCC ACGCTCTTT TCGATATCGT TTGAGTCCAT	2580
AGCACGCTCT GCCAATTCAG TCCGTGCATC AAGCGTTTCT GATTGTTTCA ATAATTCTGC	2640
AACCAGGGTT GTTTTACCGT GGTCAACGTG GCGGATAATC GCAATGTTAC GGATATCTTC	2700
TCTTAATTTT GTCATGATTT CCTCTATAAT ATTCAAAAT TATTTTCTAA CTGAACGATT	2760
ATACCATAAT TTCAAATAAA TAACATAACT CAAGCAAGTG TAAATGTTTT CACTCTGCTT	2820
TTCTTTTCAC GTCAAGCCTT TTCAAAGCGA GCGACTTATG ATAAGATAGG CACAGTATGC	2880
GTTTAGATAA TTTATTAGCT CAAGAAAAAA TCAGCCGAAA GGCCATGAAG CAAGCACTCC	2940
TCAGAGGGGA AATTCTAGTC GATGGTTGCC CAGCCCGCTC CCTAGCTCAA AATATCGATA	3000
CAGGACTACA AGAACTCCTT TTTCAGGATC GAATCATTC AAGCTATGAA CACACCTATC	3060
TTATGCTTCA TAAACCTGCT GGTGCCGTTA CAGCCAACAA AGACAAGGAA CTTCCGACCG	3120
TCATGGACCT GCTTCCATCT AACATCCAGT CTGACAAGCT CTATGCCGTT GGCCGACTGG	3180
ACCGAGATAC AACGGGACTC CTCCTCTTGA CCGATAACGG TCCCTTGGGC TTTCAGCTCC	3240
TCCATCCCCA ATATCATGTC GATAAGACTT ACCAAGTTGA GGTAAATGGA CTTCTAACAC	3300
CTGACCATAT CCAAACCTTT CAAAAAGGAA TTGTCTTTT AGATGACACT GTCTGTAAAC	3360
CCGCAAAACT AGAGATTCTA TCTGCAAGTC SCTCCCTCAG TCAAGCCTCT ATCACCATTT	3420
CAGAAGGAAA ATTCATCAA ATCAAGAAAA TGTTCCTCTC GTTTGGTGT AAGGTGACTA	3480

1232

GCCTCAAAAG AATCCAATTT GGGGACTTCA CATTTGAACCC AGATTTAGCA GAAGGTAAC	3540
ACCGCCCTTT GAACCAAAAA GAGTTACAAA TCATTAAAA CTATTTAGAG ATGAGTCGAT	3600
AAAACAAAA AAGCTTTAAA ACTAAAGCTT TTTCTTTTA TTTACCGAAA AATTAAGGCG	3660
ATTGCTACAA TCCAGTTAAC TACAGAAATC ACAATTCCTA AGATATTAAG AATCTTTTCT	3720
ATTTTATAGT CTAATTGTGA CTCTTTTGG TATGAAATAG CCAAGACCAA TCCTATGATA	3780
CCCCAAATCA GGCCTACAAT TGGAAATAAC AAACCAAGAA TAATCGACAA GATACCCACA	3840
AAAAGTGGAT TTTCTTCTT TTCTTTTATG TTCTAAGAAC TCCTTAAAT TTATACAAAT	3900
TAATTATACT ATAAAAAAT AGCTTCATCC TATCATTCGA CTAATTTGGA AATAAGGTTA	3960
GCTAGTCTTC ACTTTCCCTT TCCAAGAATC CAAGCCATAA GAAAGGATAT AAATCTCAGA	4020
AAAACCTTGT TTTTCAAGT AAAGAGCTGC ATTTGTAAC CGTTCGCAC GTTGGTTTTC	4080
GTAGAGAAGG ACAGGTTTAT CTTTACGAAG GGCTGCAAGA CTAGTTTCA ACTGACTTGA	4140
AGGAATATTG CGTGCACCAA GGATATGTTT TCTGTGGAAT TCTGCTGGGT CGCGCAAATC	4200
AATCAATGA CCCGTACGAA TCAAGGCTTC AAACCTCTCA TTGTCCCAA TTTTAGCCGC	4260
ACGGCGAATA CGAAGATAGT TAAAGCCCAT CCACGCCAAC ATTGCTAGTA TAAGTGCCCA	4320
CAAAATCCAA GTAACCATTA GTTCTTTTCT CCATTTTCT CAATATAATC CAATTCTACC	4380
TTGTGCTCTC TGCGAAGAAC TGCTTCTGCC TCTAGATAGT CTAATTTATC CATCAACCCCT	4440
GCATCGTAA TCCGAGATAG TTCCAACCTC ATCAGTTCAA TATCATATAA GCGTTTCC	4500
ATGTAAACAA TAATACCAA TCGTTGAGG AATTGCTGCA CATCATAGAA TGTTTTCATA	4560
AGACTCATTC TAGCAAAAT TTGTGTTTTT TTCAAGAAGA GACTCACACA ATGCTCCTTA	4620
TTTTCCTATC TTCTTTAGCG ATTCTAAGGC AAGTATGGTA CAATAAAAC ATGGGGATTC	4680
AACAATTACA TT	4692

(2) INFORMATION FOR SEQ ID NO: 221:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 706 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 221:

GCTAAAAAGC TGATAATCTT CGACTCCTGT ATATGATGTG TCTTTTCATG TAAGACACGC	60
CGCGCCAGAA TCATGGCAAG AGCTGCAAGA CTGGCAAGTA AGAAGCCGAT AAGATAGGCA	120
AAAAGATAAG TGAATTTGAC AAAGAAAGTC AAAAGAACTA GGAAACCAAA GCCTCCTCCA	180

1233

AAAACCTACCA AAGTCTTTTCG TAAATCCCAG ATTTTATCCA ACTGCTTGAC GAGGGAAGTC	240
GTCTGACGAA CGCCTACAAT AGTTGCTAAC ATACTTCCTA AAAAGAATGG ATAGACATGA	300
GTTAACCTGG AGAAATAAAC AGAGGAATAA GAGGTCCTA GAAACTACC AATAAACATG	360
GAGAAGAAAC TGATCAAGAA GGCAACAGCA GATAAGAGAA AGACCATCCC CTTCAACTGA	420
CCATTTGATT TAGCTTGTTT GGATAAGAAC CAACTGCCA ATCCCCAAG AATATAGTAG	480
TGAACCTCAA CTGCCAACT CCAATTATGA ACAACAAAT GAGGAATGAA CTGAGATTCA	540
TAACTCCAC CTGTTAGGAG TTCATAGAAG TTGGTCATA AGCCTAAGAC GCCCGCAATC	600
TGGCCACCAA TTCCAGCAAC ATAGTCTTGG CGAACCAAGA AAGTAAAAGG CATGGTCACC	660
AAGACCATCA AAACCACAGG TGGCACAATC TCGATAAAG CGTCTT	706

(2) INFORMATION FOR SEQ ID NO: 222:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3236 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 222:

CAGCTGATGG GCAATATCAG TCATAGAAAT TTTTCAATT AACTTTTGAG CAATTTTTTG	60
GTTGATGATA CGAGGGATTT GGTGATTTTT CTTTACCAGG GGAGTCTCAG CAACCATCAT	120
TTTTGAACAG TGATAGCACT TGAAACGGCG TTTTCTAAGG AGAATTCTAG AAGGCATACC	180
AGTTGTTTCG AGGTAAGGGA TCTTAGACGG TTTTGAAAG TCATATTTCT TCATTAGACT	240
TCCACAATCA GGGCAAGATG GAGCCTCATA ATCCAGCTTA GCGATAATTT CTTTGTGGGT	300
ATCCATATTG ATGATATCTA GAATCTTGAT GTTGGGTCT TTAATATCGA GCAGTTTGT	360
GATAAAATGT AATTGTTCCA TATGATTCTT TCTAATGAGT TGTTTTGTCG CTTTTCATTA	420
TAGGTCATAT GGGACTTTTT TTCTACACAA AAATAAGCTC CATAATATCC ATAGGGGATT	480
TACCCACTAC AAATATTATA GAGCCCGAAA ATATGGGAAA ACTGATCCTT GTTCTGCTT	540
TTGTCTATAG AAGAATAATA AAGATTATCT TCTTCAAATT CTCCGATATT CTCTAAAGTT	600
TTGTGCAAGT TGCACAGAAC TTGTTTATTT TTTTGGTCAT CTTGCCATAG AAATATAAAG	660
CGTTTTTCATA TATAATATAA TTATCAAAAG ACAAAGGAG TTCACCTCAT GGTAGAATTG	720
AATCTTAAAA ATATTTACAA AAAATATCCA AACAGCGAAC ACTATTCAGT TGAAGATTTC	780
AACTTGAACA TCAAAGATAA AGAATTTATC GTTTTCGTAG GACCTTCAGG ATGTGGTAAA	840

1234

TCAACTACAC	TCCGTATGAT	TGCTGGTCTT	GAAGACATTA	CAGAAGGTAC	TGCATCTATC	900
GATGGCGTAG	TTGTCAACGA	CGTAGCTCCA	AAAGACCGTG	ATATCGCCAT	GGTATTCCAA	960
AACTACGCTC	TTTACCCACA	CATGACTGTT	TATGACAACA	TGGCTTTCGG	TTTGAAATTG	1020
CGTAAATACA	GCAAAGAAGA	CATTAACAAA	CGTGTTCAAG	AAGCAGCTGA	AATACTTGGA	1080
TTGAAAGAAT	TCTTGGAACG	TAAACCAGCT	GACCTTTCAG	GTGGTCAACG	TCAACGTGTT	1140
GCCATGGGGC	GTGCGATTGT	CCGTGATGCG	AAAGTATTCT	TGATGGACGA	ACCTTTGTCA	1200
AACTTGGAATG	CCAAACTTCG	TGTATCAATG	CGTGCTGAAA	TCGCTAAAAA	TCACCGTCGT	1260
ATCGGAGCTA	CAACTATCTA	TGTAATCTAC	GACCAAACAG	AAGCGATGAC	ACTTGCAGAC	1320
CGTATCGTTA	TTATGTCAGC	TACTAAGAAC	CCTGCTGGTA	CAGGTACTAT	CGGACGTGTA	1380
GAACAAATCG	GTAATCCTCA	AGAAGTTTAC	AAAAATCCAG	TTAACAAATT	CGTTGCAGGA	1440
TTTCATCGGA	GCCCAGCTAT	GAACCTCATC	ACCGTGAAAT	TGGTTGGTAG	CGAAATTGTT	1500
TCTGACGGTT	TCCGTTTGAA	AGTGCCAGAA	GGAGCATTGA	AAGTTCTTCG	TGAAAAAGGC	1560
TACGAAGGAA	AAGAATTGAT	CTTTGGTATC	CGTCCAGAAG	ACGTGAATGC	AGAACCTGCT	1620
TTCTTGAAA	CATTCCCAGA	CTGTGTTGTA	AAAGCGACTA	TCTCTGTATC	AGAACTGCTT	1680
GGTTCAGAAT	CTCACCTTTA	CTGTCAAGTT	GGTAAAGACG	AGTTTGTTCG	AAAAGTTGAT	1740
GCTCGTGACT	ACTTGCAAAC	AGGTGCAACA	GTTGAGCTTG	GATTTGACTT	GAACAAAGCA	1800
CACCTTCTCG	ATGTAGAAAC	TGAAAAAACA	ATCTACTAAA	ATAAATAAAA	TTCAAAGCAC	1860
TACAAGAAAA	GATATCTCTT	TATCAATTGT	AGTGGAGAGA	TATCAGTTAA	TCTAGGGAGA	1920
GAAACAAAAT	GCTTCTCTCC	TTTTTGCTAG	AGAAGTCATA	TTATGCATCT	ATATTGTGAT	1980
GCTCTTTAAT	ACTCTTCGAA	AATCTCTTCA	AACCACGTCA	ACGTGCGCCT	GCCGTACGTA	2040
TGATTACTGA	TTTCGTCAGT	TTTATCTGCA	ACCTCAAAGA	TGTACTTTGA	GCAGCTTACG	2100
GCTAGTTTCC	TAGTTTGCTC	TTTGATTTC	ATTGAGTATT	ATTTGTGGGT	ACCATCTACA	2160
AGTGAAGCTA	TATGCGTAAA	CTACGTGAGC	AATTGAATTC	GAAGTAGAGA	GGTAATAATA	2220
AATTTATGCT	ATAGTTATGG	TGACTTGTAT	GCTTTTGATT	CTAGTTTATC	AAATAATAGA	2280
TTAGAATTGT	CAGATAATAT	CATTTTGTGT	TATAATGAAG	AAAAACAGA	GGTGTTCAAA	2340
TGTCAGAAGC	AGGTCATAAG	TTTTTAGCAA	AATTGGGGAA	AAAACGCTTA	CGTCCAGGTG	2400
GAAAGCGTGC	CACAGATTGG	TTAATTGCAG	AAGGAGGATT	TTCAAAAGAA	AAGAGAATAC	2460
TAGAGGTTGC	GTGTAATAGG	GGAACACAG	CAATTGAGTT	GGCACAGCGT	TTTGTTGCA	2520
AGATAACTGC	TGTTGATATG	GATGCTCAAG	CTTTAGAAGT	GGCTAAAAAA	TCTGCTGGAA	2580
CGGCAGGTGT	TGCTCATTTA	ATCAGTTTGT	AAAGAGCAAA	TGCAATGAAA	CTTCCTTATC	2640

1235

AAGATGCTAG TTTTGATATT GTTATAAATG AAGCTATGCT GACTATGCAA GCCGATCAAG	2700
CTAAGAAAAA ATGTGTAATG GAATATCTAA GGGTATTAAA ACCTGGAGGT CTTCTCTTGA	2760
CACATGATGT GCTTCTTAAG GAAGCTAAAG AGTCTATCAG ACAGGAATTA TCACAAGCAA	2820
TTCATGTAAA TGTAGGTCCT TTAAGCTAAG ATGGTTGGGA ACAGGTGATG ATAGAATCAG	2880
GTTATTGTGA TGTGAAAGCA TTGACTGGTG AAATGACATT AATGAAATTA TCGGGTATGA	2940
TTTATGACGA AGGTTTGCTA GGAACCTTGA AAATTTGTGT AAATGCTTGT AAAAAGGAGA	3000
ATAGAAAGCA GTTTTAACT ATGTATAAAA TGTTTGCTAA GAATAACAG AAATGGGCT	3060
TTATTGCGAT GGCTAGTTAT AAATCGTCAA AACGTTAGAT AATTATTGAA GTTAACTTTT	3120
CCTTTTCTCT TTCTTAAAAA ATATGCTATA ATAGAGAGTA AAAAAGTTTG AAAGAAAGAA	3180
AAAGATGAAT TTAAAGATT ACATGCAAC AATTGAAAT TATCCAAAGG GTACCG	3236

(2) INFORMATION FOR SEQ ID NO: 223:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2885 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 223:

CCTGACTTTT CAAATTGGTT AGTTGCCAC ACTTGGTTTA TATGGTCGTG GAAAGCATGG	60
CTATTACTTC TCAAAGGGCG ATTTCTCACC CCATGAAAAG TGTCTATTTT TGTTTAGGTT	120
TGTAAGTTAA TTCATTGTCA CATATTACTC TTAACTGAT TGAGTGAGTA CCGCTTATAT	180
TTGATGCCAA ACGCCTTAAA AGTGTTACCC TCAAGTCCTT TTAGAATACG GCTATAATTC	240
CGCTCATTGT AAAGTATCTT AAGCTCATCA CTATCTAGGT TGGTATTAAA AATGGTATTT	300
TCACGATTGT TTAGCACGTC AAAGAGTAAA TCCTGCTCCC AGTCACTCTT AGGCTTAATA	360
ACAGCATTTT TTGCTCCTAA ATCATCAATA ATTAAGTAAT CAACAGACTT CATGAGTTCA	420
GTAGCTTCAA ACTCTGTAAG TGTGACACCT TTACCATAAT TCCACCCCTC TTTAATTGT	480
TTGATCATTT CGGTTAGGCT TACAAAAAGC ACACTCTTAG GTTCTCCTTT TGTCTTATAC	540
CCCTCATTTA TACCTTTGGC AATAGCAACT GATAAAAGTG TTTTCCAAT CCCTGTACCT	600
CCTGTGATAA GCGTATTTC CCTCATGCCA TCAAGATATT TTTGTACCTG ACCTTTTGCA	660
AATTCTAAAA ATCGCTTTTC TTCTGATGTT ACAGCATTA AATCATCAAA AGTTTATGTT	720
TTAACTCAT CTGCTACATA GCTCTTATTG CTCATCAACA CATTATAAGT TTGCATATAT	780

1236

AGTTTAGCAT TCAAATTATC AGCAATCGCA TCTTCTTCAT CTTGCTTTTT CTGTTCTTCT	840
TGGCATTGTT CACAATAGGG TGGGATACAG CGAACTTCTT TTATTGCCTC TCCGTTCTCA	900
TTCCACCCCA CTACTACATG TCTTCTCCT TTGATTGTG TTAGCTGTAT TTCATGCTTA	960
GGACACAATT CGTCTAGTTT AAATGTCTCA ATATTTCCCTA AACTAGATTG TAATGATTTC	1020
ATTTTCTGAC CTCCTAAAAT GGTTTTTCTT GTGTTGGTAT CCAATCTTCA TAGCTGGTAG	1080
GCTCTAGTTG ATTGGTTTGC TGTTTTTTAG CCTCACGCGC TGCCCTGCTA TTTCTAACAA	1140
GTTCCACCGT CAATAAATTG TCCTGTTTCC AACGGTTAAG GATTACCTTG ATGTATGCAA	1200
AGTTTGCTTT ACCCTGACTG ACAGCCTCTT TTAACGCCTC ATGGATAAGC TCTGGGCTAA	1260
AATCTTCTAG CATATACTGC AATTCTTGAA TCTGTAACGG TGACAATGCT TTACCTGTCT	1320
CAGCTCGCTT CATATTCAAC AAGTCGTCTA TTTCCACACT GGTACTTTT TTATTTACAA	1380
AATCAGAAAT CAGTTGAAAA ATGTTTGGAC TTTGTAGCTG GATTTCAGCC ATTACCTCAT	1440
CAAATTCTGC TTGTGTCATG TTGTCTAAAT CTAGTGTCTG TGCATTGCCT CCTCAAACTT	1500
CTCTATAAGA CAACTTTTAT TTGCTTTCTG AGTTCCATTT TTAGAGTTAA AAAGAATATC	1560
TTTAAAGGTT ACAGTAGCCT CTAAATACTC CTTTTCAGCA TGCTCTATAT ACGCCTGTTG	1620
CTCTGCTTCG TTCTCAAAAA AGTGCTTAGC TTGGCGTTTA AAGAATGCTT TTCGCATAGC	1680
GTCCATTTC AAAAAACCAG GGGCGAAAAA CATTCCTGTA GTGCTTTTAG AGACCGCTTC	1740
GATTTTATGG CTTTCATTCA ATTCAGGAAG TTCAATCCAA AGTAAACGGG ACAACTCATC	1800
TTTGATGGAT TTTGTCTGAC TTTCCAATAA AGAAAGGATT CTTAGGCCAT TTTCTTCGCT	1860
AATTTCTCGC ATTTCTGCGC TAATTCTGTC TATACGTCTA GTTAAATTCT CATATGTTGT	1920
TTCTGTCTATG TTTTACCTC TGTTCCTTG TTGGTGTGAT TTTTGTAGCT ATTTTCTTAC	1980
TTCTAAACAT CATGTCTTA ATTTCTGAT AACTCATTTT CAATTCAATC ATAGCTATTG	2040
CCATATCTC AAATGCCTGG TACTGCTCCA ACTCCTCACT AGTCAAGCTA TCGATACCGT	2100
TATAGCCCC ACGCTCTTCT CTTAACTGCT TAGCGTTCAT GTCTGTTACT GCCTTTAGTA	2160
GCAAAGTTGTT CATGGTGCTA TGCGCGTGCT TTGGTGCATT AGGCCATGTT TCTATACTGT	2220
CATGCAAGGT TTTTCTTTT GGTTTTCTA GCGCCCTCTG CAGACGAATT TCAGAAAGTT	2280
CCTCACGCAT TTCAAAGAAT GCTTTGACTA GGTTTAGTTT GAATTGCCGT ACTGTTTCGG	2340
TATTCTTTAA ATAAGTGATC AGAAAAGTAG CCTGTTGCTC GTTCAGAATA TAGGATTTTT	2400
TAGGTTGTCC TCTAGTATCT AATTTATGGA TTTTAAATCC AAGTATTCCC AACTCTTCAA	2460
AGTCAGCCTT ATTTTCTCTT ATTAAGCGCG TGATAGTGTG GTGTTGTA CTAGCACATT	2520
CAGCGATGAT CTCGCTTGTG GTGTACGGCT CTTTCTTACC GTCCATGTAA ACTAGTTCCA	2580

1237

TTACGGTTCT ACCTCCTGTA TAAATCTGGT TAGCTTACTT TTTAATTGCC TCCTCTAGCC	2640
TCTTTTTTAG CCTCTAAAAC GGCTTTGGCT AGTGGTTAAT ATTATTACC ACTTGTCTCT	2700
ATAAACGTGT TAGAGGCCTT TATAACGACT TGTATCGCTG TATCGATATC CTCCTGGAA	2760
TAGTAGATTT ATTTTCTAAT ATCATTCAAG ACTTGTTTAA CCCATTCTT GAAAGAAATA	2820
AAATTACATC TTCTTTATCC TTGGCATCTG CTTGTCTGA GACAAATTAG AATGTCAATA	2880
CTTGG	2885

(2) INFORMATION FOR SEQ ID NO: 224:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3144 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 224:

TATCAATCCT TTCCATTAT AGGAGCAACA GAGTGGGAGT AGTCATCTAA GGACTAATTT	60
ATGTATTTTT ACGAGTCAGT ATCTTGGGAT ACTGGTTTTT ACTTTTCTAG ACTTTTGGAC	120
TACTTGTTAA AACTGGGATA ATTTTCGACT GTTAAACAGT TATTATGCAA AGCTAAAAG	180
ATTAGAATTG TCAAAACAAT CCGTCTAGGC TTGATTTTAT CCTTTATTTA CTATAAANTC	240
AGAAGGAAAA ATGTCAAACT TTTATATTGC AAATAGGAGA AATCATGACA AAAACATTAA	300
AACGTCTCTGA GGTTTATCA CCTGCAGGGA CTTTAGAGAA GCTAAAGGTA GCTGTTCACT	360
ATGGAGCAGA TGCTGTCTTT ATCGGTGGTC AGGCCTATGG TCTTCGTAGC CGTGCGGGAA	420
ACTTTACTTT CGAACAGATG GAAGAAGGCG TGCAGTTTGC GGCCAAGTAT GGTGCCAAGG	480
TCTATGTAGC GGCTAATATG GTTATGCACG AAGGAAATGA AGCTGGTGCT GGTGAGTGGT	540
TCCGTAAACT GCGTGATATC GGGATTGCAG CAGTTATCGT ATCTGACCCA GCCTTGATTA	600
TGATTGCAGT GACTGAAGCA CCAGGCCTTG AAATCCACCT TTCTACCCAA GCCAGTGCCA	660
CTAACTATGA AACCCTTGAG TTCTGGAAAG AGCTAGGCTT GACTCGTGTC GTTTTAGCGC	720
GTGAGGTTTC AATGGAAGAA TTAGCTGAGA TCCGCAAACG TACAGATGTT GAAATTGAAG	780
CCTTTGTCCA TGGAGCTATG TGTATTTCAT ACTCTGGACG TTGTACTCTT TCAAACCACA	840
TGAGTATGCG TGATGCCAAC CGTGGTGGAT GTTCTCAGTC ATGCCGTTGG AAATACGACC	900
TTTACGATAT GCCATTGGG AAAGAACGTA AGAGTTTGCA GGGTGAGATT CCAGAAGAAT	960
TTTCAATGTC AGCCGTTGAY ATGTCTATGA TTGACCACAT TCCAGATATG ATTGAAAATG	1020

1238						
GTGTGGACAG	TCTAAAAATC	GAAGGACGTA	TGxAGTCTAT	TCACTAyGTA	TCAACAGTAA	1080
CCAAGTGCCTA	CAAGGCGGCT	GTGGATGCCT	ATCTTGAAAG	TCCTGAAAAG	TTTGAAGCTA	1140
TCAAACAAGA	CTTGGTGGAC	GAGATGTGGA	AGGTGCCCCA	ACGTGAACTG	GCTACAGGAT	1200
TTTACTATGG	TACACCATCT	GAAAATGAGC	AGTTGTTTGG	TGCTCGTCGT	AAAATCCCTG	1260
AGTACAAGTT	TGTCGCTGAA	GTGGTTTCTT	ATGATGATGC	GGCACAAACA	GCAACTATTC	1320
GTCACGAAAA	CGTCATTAAAC	GAAGGGGACC	AAGTTGAGTT	TTATGGTCCA	GGTTTCCGTC	1380
ATTTTGAAAC	CTATATTGAA	GATTTGCATG	ATGCTAAAGG	CAATAAAATC	GACCGCGCTC	1440
CAAAATCCAAT	GGAATATTG	ACTATTAAAG	TCCCACAACC	TGTTCAATCA	GGAGACATGG	1500
TTCGAGCTCT	TAAAGAGGGG	CTTATCAATC	TTTATAAGGA	AGATGGAACC	AGCGTCACAG	1560
TTTCGTGCTTA	ATGTAGTTGT	TTAGTTTAA	AAAACATATGC	AAAGCTCCAT	ATACAACACT	1620
TAAACGAGAT	TAAAGAATGG	CGAAATCCCT	TGATGCGCAA	GAGATTAGCT	GTCTTTTTTA	1680
TTTTTTAAGT	GATAAAGTCG	GAGTTTAGGC	ATCAAAGCCT	ATCAAATTAA	ACAAAGAAGC	1740
GATGTCTTAG	ATATTTTGAA	AAAAATTAAT	AAGCAGAAAA	CTCTCTATTA	TTTTGTGTGA	1800
GAGAGTTTTT	TGTTAATAAA	ATTTACAAAA	ATGACATTTA	TATATTGCAT	TAAGTTAGAT	1860
ATATGATATA	ATATTGTTAA	AAAGAGGCGC	AACTTTTAA	AATTAATGAG	AATCAAAGAG	1920
AAAACCAATA	ATATTAATGG	AGGAATAAAA	AATGTAAGTA	AGCATTATGG	TCATTCAATC	1980
ATTCTCAAAG	ATATAAATTT	TGCACTTAAC	AAGGGTGAAA	TTGTTGGTCT	AGCAGGGAGA	2040
AATGGAGTTG	GTAAGAGTAC	GTTGATGAAA	ATTCTTGTTT	AGAATAATCA	ACCGACTTCA	2100
GGTAATATTA	TAAGCAGTGA	TAATGTTGGG	TATTTAATCG	AAGAACCAAA	ATTATTTTTTA	2160
TCTAAAACAG	GTTTAGAGAA	TTTAAAAATAT	TTGTCAAAT	TATATGGTGT	TGACTACAAT	2220
CAAGAAAGAT	TTAGATGTTT	GATCCAAGAG	TTAGATTTGA	CTCAGTCTAT	TAATAAAAAA	2280
GTAAAGACCT	ATTCTTTGGG	TACAAAACAA	AAATTAGCTT	TGCTTCTAAC	TCTCGTTACG	2340
GAACCTGATA	TATTGATTTT	AGATGAACCG	ACTAATGGTT	TAGATATTGA	ATCATCACAA	2400
ATAGTTTTAG	CGGTTCTAAA	AAAATTAGCT	TTACATGAAA	ATGTGGGAAT	TTTAATATCG	2460
AGTCATAAAT	TAGAAGACAT	TGAAGAAATT	TGTGAGAGAG	TTCTTTTCTT	GGAGAACGGG	2520
CTTTTGACAT	TTCAAAAAGT	AGGAAAAGAT	AGTCATAATT	TCTTGTTTGA	GATAGCTTTT	2580
TCATCAGCTA	CAGATAGAGA	CATTTTCATT	ACCAAACAAG	AATTTTGGGA	TATTGTTTAG	2640
GAAGAGGGAT	TGAGAATTAC	TATGTCTGGG	AATATTCAAA	ATAGTGAGCT	TTTTAAATTT	2700
TTTAACGAAA	ACTCTATTAA	AGTAGTTGAT	TTTGAAACTA	AAAAAGAGAC	GCTTAAAGAT	2760
ATTTACCTAA	ATCGTTCAAA	ATAAAGGAAG	GTTATAATCA	TGAAATTAAA	TAAACAGAAG	2820

1239

AATCGGATGA TTTACGTCTT GTCTAATTTT CTATATGCTA TCTCAGTTTC CATTATTTAT	2880
GCTTTGAATG GCATTGTGTT ACTAGTCATA GTAAGTAAAT TGGGTATTCC AGGTGATTTA	2940
GGATTAAATT TTATAGTAGC TATTGTAGTC AATACAATTT TGTTAGTCCT GTTTTATTTT	3000
CTATTATCTT ACATTTTCTA TTTATACAAA TTGAAAAGTG GCTTGGTATw TGGTATTTTA	3060
GTAGCTTTAC TACTCTTTAT CTCTAATATA TTAATACGA TGATGATGAA TACTAGTAAT	3120
GATTGTTTA TCAAAGCAAT TGAA	3144

(2) INFORMATION FOR SEQ ID NO: 225:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 225:

TACGGTATTA TTTTAAAGGA GAAAGAATCA TGAAAATCAA AAAATGGCTT GGTCTAGCAG	60
CCCTTGCTAC AGTCGCAGGT TTGGCTCTTG CAGCTTGCGG AAACCTCAGAA AAGAAAGCAG	120
ACAATGCAAC AACTATCAAA ATCGCAACTG TTAACCGTAG CGGTTCTGAA GAAAAACGTT	180
GGGACAAAAT CCAAGAATTG GTTAAAAAG ACGGAATTAC CTTCCAAATTT ACAGAGTTCA	240
CAGACTACTC ACAACCAAAC AAAGCAACTG CTGATGGCGA AGTAGATTG AACGCTTTCC	300
AACACTATAA CTTCTTGAAC AACTGGAACA AAGAAAACGG AAAAGACCTT GTAGCGATTG	360
CAGATACTTA CATCTCTCCA ATCCGCCTTT ACTCAGGTTT GAATGGAAGT GCCAACAAAGT	420
ACACTAAAGT AGAAGACATC CCAGCAAACG GAGAAATCGC TGTACCGAAT GACGCTACAA	480
ACGAAAGCCG TGCCTTTTAT TTGCTTCAAT CAGCTGGCTT GATTAAATTG GATGTTTCTG	540
GAAC TGCTCT TGCAACAGTT GCCAACATCA AAGAAAATCC AAAGAAGTTG AAAATCACTG	600
AATTGGACGC TAGCCAAACA GTCGTTTCAT TGTCATCAGT TGACGCTGCC GTTGTAACA	660
ATACCTTCGT TACAGAAGCA AAATTGGACT ACAAGAAATC ACTTTTCAA GAACAAGCTG	720
ATGAAAATC AAAACAATGG TACAACATCA TTGTTGCAAA AAAAGATTGG GAAACATCAC	780
CTAAGGCTGA TGCTATCAAG AAAGTAATCG CAGCTTACCA CACAGATGAC GTGAAAAAAG	840
TTATCGAAGA ATCATCAGAT GGTTTGGATC AACCAGTTTG GTAATAAGAA ACAGGGAGGT	900
GGGAGAGAAA ATTCCACCTC TTGCTTTTGT ATAGAGTATA GATTGTAAG AAGACTATTC	960
GTTCATAGAA AGGTAGAGAG AATATGGTTT TTCCTAGCGA ACAAGAACAG ATTGAAAAAT	1020

1240

TTGAAAAGGA TCATGTAGCC CAGCATTATT TTGAGGTTTT GCGTACCTTG ATTTCTAAGA	1080
AATCAGTCTT TGGCCAGCAG GTTGGACTCA AGGAAGTCGC AAATTATCTG GGTGAGATTT	1140
TCAAGCGTGT TGGAGCTGAA GTGGAGATTG ATGAGAGCTA TACAGCGCCC TTTGTCATGG	1200
CACATTTCAA GAGTTCGCGT CCAGATGCCA AGACCTTGAT TTTCTATAAC CACTATGACA	1260
CTGTGCCAGC GGATGGGGAT CAGGTCTGGA CAGAGGATCC KTTTACGCTT TCGGTCCGCA	1320
ATGGCTTCAT GTATGGGCGT GGGGTTGATG ACGACAAGGG TCATATCACA GCTCGCTTGA	1380
GTGCTTTGAG AAAATATATG CAGCACCATG ATGATTTACC TGTCAATATC AGCTTTATCA	1440
TGGAGGGAGC GGAGGAATCG GCTTCAACAG ACCTAGATAA GTATTTGGAA AAGCATGCAG	1500
ACAAACTCCG TGGGGCGGAT TTGTTGGTCT GGAACAAGG GACCAAAAAT GCCTTGAAC	1560
AGCTGGAAAT TTCTGGTGGC AATAAGGGGA TTGTGACCTT TGATGCCAAG GTAAAAAGCG	1620
CTGATGTGGA TATCCACTCG AGTTATGGTG GTGTTGTGGA ATCAGCTCCT TGGTATCTCC	1680
TCCAAGCCTT ACAGTCTCTT CGTGCTGCGG ATGGCCGTAT CTGGTTGAA GGCTTGACG	1740
AAGAAGTACA AGAGCCCAAT GAACGAGAAA TGGCCTTGCT AGAACTTAT GGTCAACGAA	1800
ACCCAGAGGA AGTTAGTCGG ATTTATGGAT TGGAGTTGCC TCTCTTACAG GAGGAGCGGA	1860
TGGCCTTTCT AAAACGTTT TTTTTCGATC CAGCGCTTAA TATCGAAGGA ATCCAGTCTG	1920
GTTATCAAGG TCAGGGTGTT AAGACTATTT TACCTGCAGA AGCCAGTGCC AAGCTAGAGG	1980
TTGCTCTGGT TCCGGGCTTA GAACCGCATG ATGTTCTGGA AAAAATTCGG AAACAGCTAG	2040
ACAAAAATGG CTTTGATAAG GTAGAATTAT ACTATACCTT GGGAGAGATG AGCTATCGAA	2100
GCGATATGAG CGCACCAGCC ATTCTCAATG TGATCGAGTT GGCCAAGAAA TTCTATCCAC	2160
AGGGCGTTTC AGTCTTGCCG ACGACAGCGG GGACAGGACC TATGCATACG GTCTTTGATG	2220
CCCTAGAGGT ACCAATGGTT GCATTGCGTC TAGGAAATGC CAATAGCCGA GACCACGGTG	2280
GAGATGAAAA TGTGCGAATC GCTGATTATT ACACCCATAT CGAATTAGTA GAGGAGCTGA	2340
TTAGAAGCTA TGAGTAGAGA TATTATCAAG TTAGATCAGA TCGATGTGAC TTTTCACCA	2400
AAGAAGAGAA CCATCACAGC GGTTAAGGAT GTGACCATT CACATCCAAGA AGGGGATATC	2460
TACGGAATCG TTGGATATTC TGGAGCAGGA AAATCAACCC TTGTACGGGT GATTAATCTC	2520
TTGCAAAAAC CATCTGCAGG GAAAATTACC ATTGACGACG ATGTGATTTT TGACGGCAAG	2580
GTGACCTTGA CGGCAGAGCA GTTGCCTCGT AAACGTCAAG ATATCGGAAT GATTTTCCAG	2640
CATTTTAACC TGATGAGCCA AAAGACAGCA GAGGAGAATG TAGCCTTTGC CCTTAAACAC	2700
TCTGAACTCA GCAAGGAAGA AAAGAAGGCT AAAGTAGCTA AGTTGTTGGA CTGTTGGT	2760
TTGGCAGATC GTGCTGAAAA CTACCCTTCA CAACTATCTG GAGGGCAAAA ACAGCGTGTG	2820

1241

GCAATTGCGC GTGCCTTGGC CAATGATCCA AAAATCTTGA TTTGAGACGA GTCAACTTCT	2880
GCCCTTGATC CGAAGACAAC CAAGCAGATT TTGGCCTTGT TGCAAGATTT GAACCAAAAA	2940
TTAGGCTTGA CTGTTGTCTT GATTACGCAT GAAATGCAGA TTGTCAAAGA CATTGCCAAC	3000
CGTGTTCAG TTATGCAGGA TGGGCATTG ATTGAAGAGG GTAGTGTGCT TGAAATCTTC	3060
TCAAACCCTA AACACCTTT GACTCAAGAC TTTATCTCAA CAGCTACAGG TATTGACGAA	3120
GCCATGGTCA AAATCGAGAA GCAAGAAATC GTGGAACACT TGTCTGAAAA CAGTCTCTTG	3180
GTGCAACTCA AGTACGCTGG AGCTTCAACA GACGAGCCAC TTTTGAATGA ATTGTACAAG	3240
CATTACCAAG TAATGGCTAA TATTCTCTAT GGAATATCG AAATCTCGA TGGTACTCCT	3300
GTTGGAGAA TGGTGGTGGT TTTGTCAGGT GAAAAAGCAG CGTTGGCAGG TGCCCAAGAA	3360
GCCATTCGTC AAGCAGGTGT ACAACTAAAA GTATTGAAGG GAGTACAGTA AGATGGAATC	3420
ATTGATTCAA ACCTATTAC CAAATGTCTA TAAGATGGGT TGGGCTGGTC AGGCAGGCTG	3480
GGGAACGGCT ATCTACTTAA CTCTTATAT GACAGTTCTT TCCTTCATTA TCGGAGGCTT	3540
CTTGGGGCTA GTGGCAGGTC TCTTTCTCGT CTTGACAGCG CCAGGTGGTG TCTTGGAGAA	3600
TAAAGTCGTA TTCTGGATT TAGACAAAAT TACCTCAATT TTTGTCGCGG TTCCCTTTAT	3660
CATCCTCTTG GCAATCTTGT CACCACTTTC TCACTTGATT GTTAAACAA GTATCGGGCC	3720
AAATGCAGCC CTTGTCCAC TTTCTTTTGC AGTCTTTGCC TTCTGC	3766

(2) INFORMATION FOR SEQ ID NO: 226:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2520 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 226:

TGTTGCTGAG TTAATCGGTA CGTTCATGTT TGTATTGCTC GGGACAGGAG CTGTTGTTTT	60
TGGAAATGGT CTTGATGGCC TTGGTCACCT TGGAAATCGCC TTTGCCTTTG GTTTGGCAAT	120
CGTGGTGGCA GCCTACTCAA TCGGAAGTGT TTCAGGTGCT CACTTGAACC CGGCTGTTTC	180
GATTGCTATG TTTGTAAACA AACGTTTGTC ATCTTCAGAA CTTGTAAACT ACATCCTTGG	240
TCAGGTTGTT GGAGCTTCA TCGCTTCTGG CGCTGTCTTC TTCCTCTTGG CTAAGTACAGG	300
TATGTCAACT GCTAGTCTTG GTGAAAATGC CTTGGCAAAC GGTGTCACTG TCTTTGGTGG	360
TTTCTTGTTC GAAGTCATCG CAACTTTCTT GTTTGTATTG GTTATCATGA CTGTGACTTC	420

1242

AGAAAGCAAG GGCAATGGCG CGATTGCTGG TTTGGTAATC GGTTCGTCAT TGATGGCGAT	480
GATTCTTGTC GGATTGAAGA TTAAGTGGACT TTCAGTAAAC CCAGCTCGTA GCTTGGCACC	540
AGCTGTCTTG GTAGGCGGCG CAACTTCAA CAAGTTTGA TTTTCATCCT TGCACCAATC	600
GCTGGTGGAG TTCTTGCAGC CCTTGTGCA AAAAATTTCC TTGGAACAGA AGAATAATTG	660
AAACTCAAAA AGCCTTGCTC CTCATCTTGA GGAACAGGGC TTTTCGTAT GATACTCTTC	720
GAAAACTCTC TCAAAACCAG TCAGCTTCAT CTTGCCGTAG TATGGTTACT GACTTCGTCA	780
GTCTATCCA CAACCTCAA ACAGTGTTC GATCTGACTT CGTCAGTTCT ATCTGCAACC	840
TCAAAACAGT GTTTTAAGCT GACTTCGTCA GTTCTATCTG CAACCTCAA ACAGTGTTC	900
AAGCTGACTT CGTCAGTTCT ATCTGCAACC TCAAAACAGT GTTTTAAGCT GACTTCGTCA	960
GTCTATCTG CAACCTCAA ACAGTGTTC AAGCTGACTT CGTCAGTTCT ATCCACAACC	1020
TCAAAACAGT GTTTTGATCT GACTTCGTCA GTTCTATCCA CAACCTCAA ACAGTGTTC	1080
GATCTGACTT CGTCAGTTCT ATCCACAACC TCAAAACAGT GCTTTGAGCA ACCTGCGGCT	1140
AACTTCCTAG TTGCTCTTT GATTTTCAT GAGTATGACT TTAGCGTTG TCAATTTTCT	1200
CTGGATAAAG GTCGTGTTG AAGAGGCGT GTTCTGCCAA GCCCTCATAC TTAGTTCTCT	1260
GCTTACCGTA GTTGTAGTAG GGGTCGATTG AAATGCCACC GCGCGGAGTG AATTTTCCCC	1320
AGACTTCTAA ATAGCGAGGG TCTAGCAAGT TGACCAAGTC TTTCCCGATG GTGTGATAC	1380
AGTTTTCGTG GAAATCTCCG TGGTTTCGGT AGCTAAATAG ATATAGTTTG AGGGATTTTG	1440
ACTCGACACA GAGCTTGTC GGAATGTAGG AAATATGAAT CGTCGCAAAG TCTGGCTGAG	1500
CAGTGATTTG TCCCAGCAGA GACATATCGA GGATATGGTG ACGAATGCC TGTTCCTTAG	1560
CGATTTCTCT AGTAATTTGA ATTTGAGGT GATGACGTTG GCCGTAGGCA AAGGTGACAG	1620
CTTCGACTGT TTCATAGTGT TGCATGACCC AGAAAAGGCA GGTGTTGAA TCTTGACCAC	1680
CACTAAAGAC GACCAAGGCT AATTGACGTT TCATAGTACT CCTTCCAAAA TGGGAAATGT	1740
TCAGAGCAG CAAAAGCTC CCATTAGGGA GCTAAAAAT ACCAAATCGA GGTTTTTTTA	1800
GCGATGGCAT ATCCCAAACA TCGTAATATT CTAATTATAT AGTAAATGA AATAAGAACA	1860
GGACAAATCG ATCAGGACAG TCAATCGAT TTCTAACAAT GTTTTAGAAG TAGAGGTGTA	1920
CTATTCTAGT TTCAATCTAC TATAGTCTAG CATATTTTTT GAAAAATGGC AAAGGGCAAG	1980
AAAAAAGAGA CCAAAGAAAG TACTTGGTCT CTCGTTTGAT TAGCTCAATT CAGCAATGAT	2040
GGCCTTGATT TGTCTGCTG TGTGAACACC TGCAACTTGT TTGACAACTT GGCCGTCCTT	2100
TTTGAAGAGA AGAGTTGGA TAGACATGAT TCCAAAAGCA CGAGCTGTGT TTGGATTTTC	2160
ATCAACGTCC ATTTTAACGA TTTTCAAGAC ATCTTCTGAA AGTTCTTCAG ACAATTTGTC	2220

1243

CAAGATTGGA CCTTGCATAC GACATGGACC ACACCAAGTT GCCCAGAAGT CTACTAAGAC	2280
CAAACCGTCT TTTGTTTCTT GTTCGAATGT TGCATCTGTA ATTGCTTTTG CCATTGTATT	2340
TCTCCTTTTT TTAGTTATAT TGGCTTAAAT CTTGTTTCAT GAGATAGAAG AAGATATCTC	2400
CATAAGTCCC ATGGTAGTCC AAATTATGAC CCTTGTAAGT TAATTTTTGG ACAGGGTACT	2460
AkkCTGCGAC GCCGATAAGG CAAGCTTGTT GCGAACGTTC AAAGTCTTCA TAAGACTCGG	2520

(2) INFORMATION FOR SEQ ID NO: 227:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5278 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 227:

ACTCAGTTAG ATTTTGT TTTT CAAAAACAAC GAAGAAAAAG ACCATGTTGC TCTACTTGGA	60
AGAATTGGCT CCGAACGTGT TTATCGATAT ATTAATAAAA AATATTTAGA TTTACCGGAA	120
ACATTCGAAA ATTATAATGT TTTTGTACCA GAAGCTAATG GAAGTGGTGC CTTAGGTGAA	180
GTCTTATCAA CACCCCTAAT CGGGGAACCC CTAATCGGGC ATACAGATAC TTTTTTATCT	240
ATTGGTAATT TTAACAACAAA ATTTGAAGCC GATGCTTGTA TTAAATTTAT TAAACTAAA	300
TTCCGTAGAG TATTATTAGG TGTTTTGAAA GTTACTCAGC ATAATTCACG CAAAACCTGG	360
TATTACGTCC CCCTCCAAGA CTTTACGGTC AATTCGGACA TTGATTGGAC ACAATCAGTG	420
ACTGATATTG ACCGCCAGCT TGATCAAAAA TATGACTTTT CCCCTGAAGA AATTGCCTTT	480
ATTGAGAATC ATGTAAGGGA GATGGATTAG AAAAGTATTT TTATTTGACA AATAGTGCTC	540
AATGATCTAA AATGACTATA TAGGATTAGG TCAGGAAGCA TACGATGCCC TGACCCTTTT	600
TGTACTTATG AGATGAGAAA GTCATTTGTT AGATAAATG ACTCGTTAGC AAACGTTCAA	660
AAAAGGAAAA CTTATGCCAG TAGAAATTAA AACCCTAAA GAAATTCATC CTAAATCTA	720
TGCCTACACC ACACCGACAG TAACCAGTAA TGAAGGCTGG ATTAAGATTG GGTATACAGA	780
ACGTGATGTC ACACAACGTA TCAAGGAGCA AACGCATACA GCTCATATAG CTACAGATGT	840
CTTATGGA CTGATGCAG CTTATACAGA AGAGCCTGAT AAGGGGAAAA CTTTCAAGGA	900
CCATGATTTT CACCATTTCC TTTCTTTCCA TGATGTAGAA CGTCGTCCCA AGACGGAATG	960
GTTCTATTTT AATGGAATC CTGAAAAATC AAAAAATCTT TTTGATAAGT TTGTTTACGA	1020
TGATTTGTCT GGTATCAGC CTGAAAAAGG ACAGGACTAT ACTCTGCGAC AAGAGCAAGA	1080

1244

AGAAGCAGTT GCTAAGACAT TAGCTTATTT CCAAGAACAT GCTGGAGGCA AGTTTCTCTG	1140
GAATGCCAAG CCACGCTTGT GTAAAACCTT GTCTACCTAT GACCTAGCTC GACGGATGGA	1200
AGCTGTCAAT GTCCTAATTG TAACAAACCG CCCTGCCATT GCTAACTCAT GGTATGATGA	1260
TTTGTGAAACA TTCATAGCAG GTCAAACGAC TTACAAGTTT GTTCTGAAT CAGATAGCCT	1320
TAAGAGTCGT CCAATCTTGT CACGACAAGA ATTTCTTGGT ATTTTAGCTG ACGATGTAAG	1380
ACAACTTGCT TTTATCAGTC TCCAAGACTT GAAAGGATCT GTTTATTTAG GTGGAGAGCA	1440
CGATAAACTC AAATGGGTAA CTGATCTGCA TTGGGACTTG TTGGTTATTG ACGAGGCTCA	1500
TGAAGGAGTT GATACCTTCA AGACTGACCA AGCCTTTAAT AAGATTCGAC GAAATTTTAC	1560
TCTGCATTTG TCAGGTACAT CATTTAAAGC ATTTGGCTAAA GGAGATTTTA CAGAGGAACA	1620
AATCTACAAC TGGTCTTATG CTGATGAGCA GGCTGCTAAG TATTCGTGGT CTCTTGAGCA	1680
AGAAGAGGAA AATCCTTATG AAAGCTTGCC TCAGTTGAAT CTCTTTACCT ATCAAATGTC	1740
TCAGATGATT GCGAAAAAGT TAGAAAAAGG CGCTCAGATC GATGGTGAAA ATATTGACTA	1800
TGTTTTTGAC TTAAGTGAAT TTTCGCTAC AGATGATAAA GGGAAATTTA TTCATGAGCA	1860
TGATGTCAGA AATTGGTTAG ATACTCTATC AAGCAATGAA AAATATCCAT TTCAACCAA	1920
AGAACTCCGT AATGAACTCA AGCATACTTT TTGGCTTTTA GAACGTGTCG CTTCGGCCAA	1980
AGCATTAATA GGCCTACTAG AAGAACACCC AATCTATGAA AACTATGAGA TCGTTCTAGC	2040
TGCTGGTGAC GGACGTATGT CCGAAGAAGA CGATAAAGTC AAACCTCAAT CCTTGGACTT	2100
GGTTAGAAAA GCGATAGCAG AGAATGACAA AACCATTACC CTATCCGTTG GTCAGCTGAC	2160
GACAGGTGTC ACTATCCCTG AATGGACAGG TGTATTGATG TTATCAAATT TGAAATCACC	2220
AGCTCTTTAT ATGCAGGCCG CCTTCCGTGC TCAAAATCCT TACTCATGGA GCGATAACAA	2280
AGGAAATCAC TTTCGCAAAG AAAGAGCCTA TGTATTGAC TTGCGCCCG AAAGAACCTT	2340
GATTCTCTTT GATGAGTTTG CCAACAACCT ATTGCTTGTA ACTGCAGCTG GTAGAGGAAC	2400
TTCAGCTACA CGCGAAGAAA ATATTAGAGA ATTATTAAAC TTCTTTCCAA TTATTGCCGA	2460
AGACCGTGCT GGTAAAGATG TTGAATTGA TGCAAAGGCA GTTCTAACCA CTCCTCGCCA	2520
GATAAAAGCT AGAGAAGTTC TTAAACGAGG TTTTATGTCC AATCTCTTAT TTGATAATAT	2580
TAGTGGTATT TTCCAAGCAA GTCAAACAGT TTTAGATATT TTAAATGAGC TGCCAGTTGA	2640
AAAGGAAGGG AAGGTACAAG ATAGTTCTGA TTTATTAGAT TTTCAGATG TTACAGTCGA	2700
TGATGAGGGA AATGCAGTAG TAGACCATGA AATTGTAGTT AATCAGCAAA TGCGACTTTT	2760
TGGTGAAAAA GTTTATGGAC TTGGTGAATC TGTGCTGAG TTAGTCACAA AAGATGAGGA	2820
ACGAACTCAA AAACAGCTGG TCAATGACTT GAGTAAGACC GTTCTTCAG TGATTGTAGA	2880

1245

GGAATTGAAA GCAGATTATT CTCTAAAAAC AAGGGAAACT GAGCAAATTA AGAAACAAAT	2940
TACAGCAACA CTTGAGAATG AAATTCGAAA AAATGATATC GAAAGAAAAA TTTCTGAAGC	3000
TCATATCAAG CAAGAGTTGC AACAGCAGCT CAAAGAAGCA AATGATAAAG CGCAAAAAGA	3060
TAAGATTCAA GAAGATTGG AAAAACGTTT AGAAGAAAAT AAATCATTC ATAAAGAAAA	3120
ACTAGAACAA AACTCAAAA AAGAAGTGGA AAAAATGCCT GAGAAATTTA TCGAACAGGT	3180
TGAGATAAAA CGTGTGGAAC AGTTGAAACA ATCAGCTCAA GATGAAATTC GTGACCATT	3240
ACGAGGGTTT GCAAGAACAA TTCCAAGTTT TATTATGGCT TACGGTGATC AAATCTAAC	3300
ACTTGATAAT TTTGATGCCT TTGTTCCTGA ACATGTTTTT TATGAAGTAA CAGGGATTAC	3360
GATTGATCAG TTTAGATATT TGCGAGATGG TGGGCAGGAT TTTGCAGGGC ATCTCTTTGA	3420
TAAAGCAACA TTTGACGAAG CTATTCAAGA ATTTCTTCGC AAGAAAAAGG AGTTGGCGGA	3480
TTATTTTAAA GATCAAAAAG AAGACATTTT TGACTATATT CCACCGCAGA AGACCAACCA	3540
AATTTTCACT CCTAAACGAG TGGTGAAAAG GATGGTAGAT GATTTGGAAA AGGAAAATCC	3600
AGGGATTTTT GATGATCCAT CTAAGACTTT TATTGATTTA TATATGAAGT CAGGCCTCTA	3660
TATTGCAGAA CTTGTGAAGC GGTATATATA TAGCAATGGC TTGAAAGAGG CCTTTCCAAA	3720
TCCTGAAGAA CGCTTAAAAC ATATTTTGGA AAAGCAAGTT TATGGATTG CTCCGCTCTGA	3780
GATTATCTAT AACATTTCCA CTAATTTTAT ATTTGGCAAT CTTTCTAALC ATATCAGTAG	3840
GAAGAATTTT GTTTTAGCAG ATACCATTCC AGCGGCTAAA GAAGGGAGCA TTCAAAAGTT	3900
GGTTGATTCC TATTTTGAAA ATAATTAAAA AGAAGGCCGA GTCAAAATTC TTTGAAATCA	3960
GAAAAAACGC ATAATATTGA GTGCTTTTGT ACTGCCCCC AAAAGTTAGA CAGAAAAAAT	4020
CTAACTTTTG GGGGGCAGTT CAGACAATCC TTGGTATTAT GCGTTTTATT GTGGGAAGAT	4080
GTATAATGGA TTGAAATAAG ATATGAACAA ATCAATTAGG AATTTAAAGC ATTTTATAAC	4140
AACGTTTGTAG AGTAATGGGG GGCTATTTCA ACTTCAACCT ACTATAATAC AGAAAAAAC	4200
AACTCCCTGA TAATTCAAGG AGTTGTCTAT AGTTAAATTA GTTTTGTAGAA GCTTCTTGGA	4260
ATTCTGGGTT TTTCCATGCT TCGTCAATGA TAGCTTGTA TTTCTTAGCA GATGCTTGCA	4320
TTTTTTGAGT TTCTGCGTCG TTCAATGGGA TATTTACTGG ACGAACGATA CCATGTGCAC	4380
CAACAACAGC TGGTTGACCG ATAAAGACAT TCTCAACTCC GTATTGACCT TCTTGAATA	4440
CTGAAAGTGG AAGTACTGCG TTTTCATCGT CAAGGATTGC TTTAGTGATA CGAGCAAGGG	4500
CTACTGCGAT ACCGTAGTAT GTTGACCTT TTTGTTGAT GATTGTGTAG GCTGCATCAC	4560
GAACACCTTC GAACAATTCA ATCAATTCAG CTTCTTGAAC ATTTTGAGTG TCTTTAAGGA	4620

1246

ATTCTTCAAG GTTTACACCA GCGATGTTAG CGTGTGACCA AACAGCGAAC TCAGAGTCAC	4680
CGTGTTCAACC CATGATGTAG GCGTGCACTG AACGAGCATC CACATCCAAT TTTTCAGCAA	4740
GTGCTTGACG GAAACGAGCT GAGTCAAGTG AAGTACCTGA ACCGATAACG CGTTCTTTAG	4800
GGAAACCAGA GAATTTCCAA GTTGAGTAAG TCAAAACGTC AACTGGGTGA GCAGCAACAA	4860
GGAAGATACC TTGAAACCA GATTCAACAA CTGAGTTAC GATTGATTG TTGATAGCAA	4920
GGTTTTTACC TACAAGGTCA AGACGAGTTT CACCTGGTTT TTGAGGTGCA CCTGCAGTGA	4980
TCACAACAAG GTCAGCGTCT GCACAGTCAG AGTATTGAGC TGCATAGATT TTTTtaggtg	5040
AAGTGAAGGC AAGGGCGTGA CTAAGGTCAA GCGCATCACC AACAGCTTTT TCATGCAATT	5100
GTGGAATTC GATAATTCCA AGCTCTGTG CAATTCCTTG GTTAACAAGT GCAAAAGCGT	5160
AAGATGAACC TACAGACCA TCACCGACAA GGATACTTT TTTGTGTTGT TTAGTTGAAG	5220
TCATTGTTTT AAACATCTCC TTAATTTTAT TAGGGGATTT TCCCTAGACA ACTTCATT	5278

(2) INFORMATION FOR SEQ ID NO: 228:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1941 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 228:

ATAAGGAATC TCTAAAAAT TTAAAGGAGA ATCTAGCAAA TGGATTTCAC ATGGGCACTG	60
AAGTATGCCA CTGAATTTT GGGAACTGCC ATTTTGATCA TTCTTGGGAA TGGTGCAGTT	120
GCCAACGTTG AACTTAAAGG TACGAAAGGT CACCAAAGTG GCTGGATCGT CATCGCTGTT	180
GGTTATGGTA TGGGGTTAT GATCCAGCC TTGATGTTG GTAACGTATC TGGGAATCAC	240
ATCAACCCTG CTTTCACTCT AGGGCTTGCA GTTAGCGGTC TTTTCCCTTG GGCACAAGTG	300
GTACCTTACA TTATCGCGCA AGTCTTGGG GCTATCTTG GCCAAGCCTT AGTTGTGGCA	360
ACATACCGTC CATTCTACTT GAAACTGAA AACCCTAATA ACATCTTGG AACTTTCTCA	420
ACTATTTCAA GTATTGACCA TGGTACAAA GAAAGTCGCT ATGCAGCAAC TGTCATGGT	480
TTGATTAATG AGTTTGTGG TTCATTGTG TTGTTCTTTG CAGCTCTTG TTTGACTAAA	540
AACTTCTTTG GTGCTGAAGT GCTTCAATC ATGAAACAAA AGGCAACAGA AGCAGGACAA	600
ACAGTTGATT TTTCTGACTT GGCTATTAAA GCACAGGTGG CTCCACACAC TGCTTCAGGA	660
CTTCTGTGG CTCACTTGGC ACTTGGATTC CTCGTTATGG CTTTGGTAAC ATCACTTGGA	720
GGACCTACAG GACCTGCCCT GAACCCAGCC CGTGACTTGG GACCACGTCT CCTTCATGCT	780

1247

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TTCCTTCCCA AATCAGTTCT TGGTGAGCAT AAAGGCGATT CAAAATGGTG GTATTCTTGG      840
GTACCAGTAG TAGCACCTAT CGCAGCAGCA ATTGCGGCAG TAGCTGTATT CAAATTCCTT      900
TATCTCTAAG AAATAGCTCC TTAAACATTT GAGTGAGCAC CATCTATAAG TAAGAGAGGA      960
TCAGACTGGk TCTCTCTTTT kGATTTTtAG GAAATGAAA GAaCTCTAAA CAAACTCCTC     1020
TCCAGCAGTG GTTTAGAAGT CTCAGTGGGC TATTCCAGCT TCAATGGACT ATAGTAGGTT     1080
GCAGTTGAAA TAATAGACCC TTGTTTCTAA AACATTGTGA GAAATTGGTT TGAATTCTCC     1140
AATCAAATG TGCAGTTTTC ATTCTACTAT ATATTATCGG AATATTATCG GAGATGGGTT     1200
CCCTATCTTG TAAGTCTGCT TTATAGTGGG TTGAAGTTGG AATAGTCCTC CCTTCTTTCT     1260
CAAACATTGT GAGGAATTGA TTTACCTTCC TCAACAAAAT GTTCAGTTTC TATTTCAATT     1320
TACTATAAAA TAAGCGATTA GGGGGGCTAT TCTTCGACCT ACATTGACTC TGCTGAGTCC     1380
TATGATTGTT ATCGTTTAT CTGCAATTTT ATACTCAATG AAAATCAAAG GGCAAACATA     1440
GAAGCTAGCC GCAGGTTGTT CAAACACAG TTTTGAGGTT GTATAGTAGA TTGAAACTAG     1500
AATAGTACAC ATCTACTTCT AAAACATTGT TAGAAATCGA TTTGACTGTC CTGAACGATT     1560
TGCCCTATTC TTGTTTCATT TTAATATATA AACCAGAGAC TGTTTACATT TTCAGCAAGT     1620
GAGTGGATGG ATAATGCTGA AAATCCTTG AAGGATAAGT CTATTTAGTA CTTTCTATTA     1680
ATTAGTTAAA TTTTACCAA GAATAATTCA CAAAACGTT GTAAAACACT TGCAATTTAG     1740
CTGAAATTG ATAAAATAGT AAGGAAAGTT AGACTGTATT GCCTACTGTC TATCTATAAA     1800
ATATATTTTA TTGGAGGCTT TTAATCAAAT GGCAAAAGAA AAATACGATC GTAGTAAACC     1860
ACACGTTAAC ATTGGTACTA TCGGACACGT TGACCACGGT AAAACTACCC TAAGTGCAGC     1920
TATCACAAC TTTTGGCAC G                                     1941

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(2) INFORMATION FOR SEQ ID NO: 229:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 755 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 229:

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ATTTGAAGAA ATTGAAGAAA TCGTAGCCCC TACAGATGGT GAATTTTGG GGGAAAGTTT      60
ACTTGGAAGT GGGGTAGTTC TCTTAATTGG AGTAGCCTGT TGTTAAAAAG ATAGGGAGTG     120
ATAATCATGC AAGATAACTT TTTATTTGAG GAAATTGAAG AAATTCAGT ACCAGTTAAT     180

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1248

GATTTTTCAG CTGGACTTGC AACAGGTATC GGATTGGTT TAGCAATCCT TGCTCTTGCT	240
GGTTGTTGAA GTTTGTTCAT TTTACTAACAT CAAGCTTTTT CAATTTTCATT TTAGACAGTC	300
ATTTAAATTT TCCGTATTAG TCTTGCAGCA AGAGATTAAT AGAATTAGTC ATTATTTTAT	360
TGATTGCGGA CTGAGGGACT AGAGTATGTT TTTACTTAACC CCTCTTTTAT TTATTAAAGG	420
TTAGGTTTGT TATGAGAATT GTTGATAAGA TTAAGATATT ACCTACTCCT TATGAGGGAC	480
ACTATCATTT ATATATACCA TCCAGTAAGA AACATGTATT AGTTGGGAAA CAGGAAAAAA	540
ATGGTTAGAG CAACTAATAG GTCAAGAATT TACCATATCG GACTTATTAG TGTAGTAGG	600
GAAGAAATAT TTTTAAATA TCTTGGGACT TTAATATAAC ATTATCTGAA AAATTAAACT	660
ATAAAAGATT TAATAAGAAT TTTGAAAAAA TCCTATCTTG TTGTCATTAT ATTTGCAACG	720
ATACATGAAA TTAGTCATGC AATAATTGCT AATAA	755

(2) INFORMATION FOR SEQ ID NO: 230:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1483 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 230:

CCAGAAAAAC CGTAGTGGAG CTCGTGGAAC AGTGAATTG ATTTTCCTAAA AAGAATACAA	60
TAAATTTTCA AGTATCTCAA AGAGGGAGGC ATAAGATGTC AGATGCATTT ACAGATGTAG	120
CCAAGATGAA AAAAATCAA GAAGAAATCA AGGCACATGA GGGACAAGTC GTAGAAATGA	180
CTTTGGAGAA TGGTCGTAAG CGCCAAAAAA ATAGATTGGG TAAGCTAATT GAAGTTTATC	240
CATCTCTATT TATTGTGGAG TTTGGGGATG TGGAAGGAGA TAAACAAGTT AATGTTTACG	300
TTGAATCCTT TACTTACTCA GATATTCTTA CAGAAAAGAA TTTGATTCAT TATCTTGACT	360
AAAGTGAGAA ATTTTCTCAC TTTTCTTTT TTCTCCGAAT AATTTAGGTG AAGGCAATCA	420
TCGCTTTATA TTATTTTTC AAGAGGAAGA ATGAAAATTT TACCGTTTAT AGCAAGAGGA	480
ACAAGTTATT ACTTGAAGAT GTCAGTTAAA AAGCTTGTTT CTTTTTTAGT AGTAGGATTG	540
ATGCTAGCAG CTGGTGATAG TGTCTATGCC TATTCCAGAG GAAATGGATC GATTGCGCGT	600
GGGGATGATT ATCCTGCTTA TTATAAAAAA GGGAGCCAGG AGATTGATCA GTGGCGCATG	660
TATTCTCGTC AGTGTACTTC TTTGTAGGCC TTTCGTTTGA GTAATGTCAA TGGTTTGA	720
ATTCGGGCAG CTTATGGAAA TGCGAATGAA TGGGGACATC GTGCTCGTCG GGAAGGTTAT	780
CGTGTAGATA ATACACCGAC GATTGGTTCC ATTACTGGT CTACTGCAGG AACTTATGGT	840

1249

CATGTTGCCT GGGTGTCAAA TGTAATGGGA GATCAGATTG AGATTGAGGA ATATAACTAT	900
GGTTATACAG AATCCTATAA TAAACGAGTT ATAAAAGCAA ACACGATGAC AGGATTTATT	960
CATTTTAAAG ATTTGGATGG TGGCAGTGTT GGAATAGTC AATCCTCAAC TTCAACAGGC	1020
GGAATCATT ATTTTAAGAC CAAGTCTGCT ATTAAACTG AACCTCTAGC TAGCGGAACT	1080
GTGATTGATT ACTATTATCC TGGGAGAAG GTTCATTATG ATCAGATACT TGAAAAAGAC	1140
GGCTATAAGT GGTGAGTTA TACTGCCTAT AATGGAAGCT ATCGTTATGT TCAATTGGAG	1200
GCTGTGAATA AAAATCCTCT AGGTAATCTT GTTCTTTCTT CAACAGGTGG AACTCATTAT	1260
TTTAAGACCA AGTCTGCTAT CAAAACGAA CCCCTAGTTA GTGCAACTGT GATTGATTAC	1320
TATTATCCTG GAGAGAAGGT TCATTATGAT CAAATTCTCG AAAAAGACGG CTACAAGTGG	1380
TTGAGTTATA CGGCTTATAA CGGAAGTCGT CGCTATATAC AGCTAGAGGG AGTGACTTCT	1440
TCACAAAATT ATCAGAATCA ATCAGGAAAC ATCTCTAGCT ATG	1483

(2) INFORMATION FOR SEQ ID NO: 231:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1027 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 231:

CCCGGAAAC AAGTTAAAGT TGAAGTTGGT CAAGCAGTTT ACGTTGAAAA ATTGAACGTT	60
GAAGCTGGTC AAGAAGTTAC TTTTAACGAA TTGTTCTTGT TGGTGGTGAA AACACTGTTG	120
TCGGAACTCC ACTTGTTGCT GGAGCTACTG TAGTTGGAAC TGTGAAAAA CAAGGAAAAC	180
AAAAGAAAGT GGTACTTAC AAGTACAAAC CTA AAAAAGG TAGCCACCGT AAACAAGGTC	240
ACCGTCAACC ATATACAAAA GTTGTCATCA ACGCAATCAA CGCTTAATTT TAAGGAGAAC	300
ACATGATACA GGCAGTCTTT GAGAGAGCCG AAGATGGCGA GCTGAGGAGT GCGGAAATTA	360
CTGGACACGC CGAGAGTGGC GAATACGGCT TAGATGTCGT GTGTGCATCG GTTCTACGC	420
TTGCCATTAA CTTTATCAAT TCTATTGAGA AATTGTCAGG CTATGAACCA ATCCTAGAAT	480
TAAACGAAGA TGAAGTGGC TATCTGATGG TTGAAATACC AAAAGATCTT CCTTCACACC	540
AGAGAGAAAT GACCCAGTTA TTCTTTGAAT CATTTTCTT AGGTATGGCA AACTTATCGG	600
AGAACTATTC TGAGTTCGTC CAAACCAGAG TTATCACAGA AAATAACAC GGAGGAAAAC	660
ATTATGTTAA AAATGACTCT TAACAACCTG CAACTTTTCG CCCACAAAAA AGGTGGAGGT	720

1250

TCTACATCAA ACGGACGTGA TTCACAAGCA AAACGTCTTG GAGCTAAAGC AGCTGACGGA	780
CAAACGTGTA CAGGTGGATC AATCCTTTAC CGTCAACGTG GTACACACAT CTATCCAGGT	840
GTAAACGTTG GTCGTGGTGG AGATGATACT TTGTTCGCTA AAGTTGAAGG CGTAGTACGC	900
TTTGAACGTA AAGGACGCGA TAAAAACAA GTGTCTGTTT ACCCAATCGC TAAATAAAAA	960
GGTCCATTGA ACCTTTTATC CCGAACCTTG AAATGTAGAG GTGAGGAAGC TAGAAACAGC	1020
TTAAAAAT	1027

(2) INFORMATION FOR SEQ ID NO: 232:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1990 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 232:

CGGTTCAAAT GGTGCAGGTA AATCTACGTT AATTAATTCT ATTGTAGGTT TTCAAGAGAT	60
TTATTTAGGA GAAATAGAGT ATTGTGATAA AGATTTGATA GTTAGTTCTC AACCTTTTGC	120
TCATTTAGGC TTTACTCCTC AAACCACAGT AATTGATTTT TATACTACTG TGAAGGACAA	180
TGTAATATTG GGGCTGAACC TTGCTGGAAA GTTGGGAAA AATGCTGAGA AGTTGTGTCA	240
AATAGCCTTA GAAATTGTTG GGTTAGCTGA TAAAAAAAT AATTTGGTAG AACATTGTC	300
AGGTGGACAA CTGCAACGCG TCCAGATTGC TAGAGCAATA GCTCATAATC CAGATTTTTA	360
TATTTTAGAT GAACCTACCG TTGGTTTAGA TACTGAATCT GCCGAAAAAT TTTAATGTA	420
TTTAAAGAT AAGAGTTTGG AAGGAAAAC TATTATCATA TCTTCACATG ACATAAATCT	480
ACTCGAAAAG TTTTGTAATA AAATACTTTT TTTACAAAAT GGCTCCATAT CATTTTGTG	540
TGATATGCGT GACTTTGTAG ATAATTCAAC TATCAAATTA AATTTTTCAT TGCAGAATAG	600
AATTTCTAGA TATCAAATG AATTTTLAGA AAATTTLAGA TTTAAAGTTC ACATCGAAGA	660
TAATGATAGT TTTACAATAG AAGTCCCTAT AGAAGAAAAG ATCTTAGATG TTATCAATGA	720
GGTAGGAAAA GCATGTGAAA TAAAAACTT TTCAACAAGT AAATTAACCT TACAAGAAAG	780
TTATTTGCAA AGAATAGGAG GAGAAAAATG AAGGCTGATC AATTAAGGCA CAAATCGGAC	840
TTAGGTTTAA GAGGTCTAGC GATTATTGCT AAAAATGAGA TTATTGCTTT TTTTAGAAGT	900
AAAGGTTTAA TTATTCTCA GTTCTTACAA CCAATCTTAT ATGTTGTTTT TATAATAATA	960
GGATTAAATT CTTGATATAA GAACATTGAG TTTAATGATA TAAAAACCTC TTATGCAGAA	1020
TATACAATCA TTGGTGTAT AGCTTTATTG ATAATCGGGC AGATGACTCA AGTTATTAT	1080

1251

AGGGTGACAA TAGATAAAAA ATATGGGCTA CTTGCTCTTA AGTTATGCAG TGGAGTTCGT 1140
 CCTTTATATT ATATTTTAGG GATGAGTATC TATTCTATAT TAGGGTTGAT AGTTCAAGAA 1200
 ATTATATAT ATATAATTAC GTTAGCGTTT GAGATAAATA TCGCAATGGA TAGATTTTTT 1260
 TATACAGTTT TGTATCTAT TGTGTTTTA TTATTTGGG ACTCCCTTGC AATTTTACTT 1320
 ACAATGTTTA TCAATGATTA CAGAAGACGT GATATTGTAA TACGTTTTGT ACTAACACCG 1380
 CTTGGTTTTA CAGCTCCTGT TTTCTACTTA ATAGATTCTG CTCCTAGTAT TGTGAGATGG 1440
 ATTGGTCAGT TAAATCCCTT AACTTATCAA TTAACATTTT TGAGAACTT TTATTTTAAA 1500
 AATTCAACAA CTTTGAATT AGTTTTCTTA TTGTTAACAT CATTACTTGT CCTTATATCT 1560
 GTATCTTTTA TTATACCAA GATAAAATTG ATACTGATAG AAAGATAAAA GTTGGGTCAT 1620
 CCAACTTTTT TGTGTCTCC CGAAAACCAC TAGCTATGCT AGTGGTTCCA TAGAGCTTTT 1680
 AGCGTGGTAA CAAAAGAAC CTCCTAAAAT GATAAGATAG AAGTGGTTTC TCCGCCACTA 1740
 CAACATATCA TACAGGAGGT ACCTCATGAG AGAGGATAAT CAAAGTTTAT CACATACCAC 1800
 ATGGAATTGT AAATATCATA TTGTTTTTGC ACCCAAATAT CGTCGTCAA TCATTTATGG 1860
 CAGATACAAA GCTAGTATCG GAAGAATCAT ACGTGACTTA TGTAGCGTA AGGGTGTAA 1920
 AATCCATGAA GCGAATGCTT GTTCAGACCA TATTCATG CTTATCAGTA TTCTCCGAA 1980
 ACTTAGTGT 1990

(2) INFORMATION FOR SEQ ID NO: 233:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 233:

GAACTATATT GCATATATTT CTAGCAATGA TCATGGCGAA TCTTGGTCTG CACCAACTTT 60
 ATTACCTCCT ATAATGGGAC TTAATCGGAA TGCGCCATAT TTAGGTCCTG GACGTGGAAT 120
 CATTGAAAGC TCAACTGGAC GTATTCTTAT TCCGTCTTAC ACTGGTAAAG AGTCTGCGTT 180
 CATTTATAGT GACGATAATG GAGCATCTTG GAAAGTTAAA GTAGTGCCAC TTCCTTCTAG 240
 TTGGTCAGCA GAAGCACAAT TTGTAGAATT GAGTCCAGGA GTAATTCAAG CATATATGCG 300
 TACAAATAAT GGTAAAATTG CATATTTAAC AAGTAAAGAC GCAGGTACTA CTTGGAGTGC 360
 ACCGGAATAT TTGAAATTG TTTCAAATCC AAGTTATGGA ACACAATTAT CAATCATCAA 420

1252

TTATAGCCAA TTGATTGATG GTAAAAAGGC TGTCAATTTTA AGTACTCCAA ACTCCACAAA	480
TGGTCGTAAA CACGGACAAA TTTGGATTGG TCTAATTAAT GATGATAATA CAATTGATTG	540
GCGTTATCAT CACGACGTTG ATTATAGTAA CTATGGATAC TCATATTCAA CATTGACAGA	600
GTTACCAAAT CATGAAATTG GATTGATGTT TGAAAAATTT GATTCATGGT CTCGTAATGA	660
ACTTCATATG AAAAATGTTG TACCATATAT AACATTTAAG ATTGAAGATC TGAAAAAGAA	720
TTAAAGCTGA AATTTGAAAA TATATAAAAA GAGGATAAAA ATTATGGTAA ATTACGGTAT	780
TGTTGGAGCT GGATATTTTG GAGCTGATTT AGCTCGCTCA ATGAACAAAA TTGAAGATGC	840
AAAAGTGGTT GCGGTATTTG ACCCAAATCA TGGAGAAGAA GTTGCTCAAG AGTTGGGATC	900
AGATGTTTGT GCAAGTTTAG ATGAAGTTGT AGCACGTGAA GATATTGATT GTGTGATCGT	960
AGCTTCACCT AGCTACCTTC ACCGTGAACC AGTTGTGAAA GCTGCTCAAC ATGGCAAACA	1020
CGTATTTTGT GAAAAGCCAA TTGCATTGTC TTATGAAGAT TGTAAGCCCA TGGTTGACGC	1080
ATGTAAGAA AATAATGTCA TCTTTATGGC TGGTCACATC ATGAAGTTCT TTAACGGTGT	1140
ACACCATGCT AAAGAATTGA TTAAGCAAGG TAAATCGGT AAAGTTCTTT ATTGCCATGC	1200
TGCTCGTACA GGTGGGAAG AACACAACC AACTGTATCA TGGAAGAAAC TTCGTTCTCA	1260
ATCTGGAGGA CATTTGTACC ACCATATTCA TGAATTAGAT TGCATTCAGT TTATCATGGG	1320
AGGACTTCCT GAAAAAGCGA CAATGGTAGG AGGCAATGTA TATCATAAAG GTGAAAACCT	1380
TGGTGATGAA GATGATATGC TCATTGTAAA CTTAGAATAC TCTGATGATC GTTATGCTGT	1440
TTTGGGAATAT GGTAAATGCTT TCCGTTGGGG TGAACACTAC GTCTTGATTC AAGGAACTGA	1500
AGGAGCTATC AACTTGACT TGTTCATAC TGGCGGTACT CTTGCTGTTA AAGGTGAAGG	1560
AGAATCACAC TTCTTAGTTC ATGAACTCA AGAGGAAGAT GATGATCGTA CAGCTATCTA	1620
TACCGGTCGT GGTATGGATG GAGCAATTGC GTACGGTAAA CCAGGAGTAC GTTGCCCAT	1680
ATGGTTGCAA ACATGTATTG ATAAAGAAAT GGAATATCTA CATGACATCA TTAAAGGTGG	1740
AGAAATTACA GAAGAATTG AAAAATTCT CAATGGTGTA GCTGCTTTAG AATCAATC	1800
TACCGCTGAT GCATGTACTT TATCAGTTAA AGAAGATCGA AAAGTAAGTC TTTCAGAAAT	1860
CACAAATGCT TAACTTTGT AAAACAGAAT AGTAAATCTT TGTCAATTATA TAATTTCTAA	1920
AGTTCTGTGA TACAATCAT TGAATAAGA AATAGAGATG GGAAGGGAT AATGCCAGT	1980
CCCATTTTTT ATCAAAAAGT AATGAGATCA AAAATGTGGG AGTGTGAAA TGAAGATTAT	2040
AGGTATCGAT ATTGGCGGAA CAACAATTAA GGCAGATTTA TACGATGAGT TTGGAACGAG	2100
TTTGAATCAT TTCAAAGAGA TAGAAACAAT TATTGACTAT GATTGGGAA CGAATCAGAT	2160
ATTAAATCAG GTCTGTGATT TAATTGGTGA GTATACTTTA AATCATTCOA TTGATGGTGT	2220

1253

TGGGATTTCC ACTGCTGGAG TTGTTAATGC TAATACTGGA GAAATCATCT ATGCAGGCTA	2280
TACAATACCA GGGTATATCG GAGTAACTT TACTGCCGAA ATAGAAAAAC GTTTTGGGTT	2340
GTATACTTTT GTTGAAAAATG ATGTTAATTG TGCTGCATTA GGTGAATTGT GGAAGGGACA	2400
AGCCAAAGAT AAGAAAAATG TAGTAATGGT TACTATTGGA ACAGGTATAG GAGGCAGTAT	2460
TATTGTCAAC GGACAAATTG TTAACGGATT TAACTATACT GCTGGTGAAG TAGGTTATAT	2520
TCCTGTAGGT AATTCGGATT GGCAAAGTAA AGCCTCAACA ACCGCATTGA TTCATTTATA	2580
TCAAAAAAAG AGCTTGAAAA CTAATCAAAC TGGACGTACT TTCCTCACTG ATTTAAGATC	2640
TGGAGATAAA GTTGCTGAAG AAACTTTGA AATTTTGTGA GAAATCTAA CAAAAGGTTT	2700
ATTAACGATT TCTTATCTAC TTAATCCAGA AATTCTCATA TTAGGAGGTG GGATTCTGGA	2760
TAGTAAGGAT ATTTTGTTAC CTGAAATTCA AAGTCTTTA GCTAAAAATG CAATGGATAA	2820
TAGGTTTTTA CCTAAAAATC TTGTGGCAGC TACATTAGGA AATGAAGCTG GTCGTATAGG	2880
AGCTGTAAAA AATTTCTTAG ATAGAATTTC TAATAAATAG TATGTAAGAT AAGGAGGTGT	2940
CACAATGACT AACTCTGTAT TTTCGACAAT GCAAGATATT GAGAATGTTG CAACCGATAT	3000
TATAAATCA TATGATAATG AGATTTATAC TTATAAAGCT GTTCCCAAG AAGAATTGGA	3060
AAAAC TAGAA AAAAGTTATG ATGAAAAAAG TCACGAAGAA TTAGTTTCAA TAGAAAGCAA	3120
TTTAGAAATG AAACAACAGA ACCTTATTGA TGACCTTAT AAAACAATCA AGGAAAATGA	3180
TGCAATATT CAGTATATTT CATCAAGTAG GAGAGGAGAA TTTGTAGAAA AAATTATTGG	3240
TAGGGTGGTA GAAAAATATG GCCATTAGTC AGATGAAAAG AATCTCTCTA CTATTTTCTA	3300
AAAGTAGTCT TGATGATGTT TTA AAAACTA TTCAAGAACT AGAGTCAGTG CAGTCCGTG	3360
ATTTAAAGGT TCAGGATAAC TGGTCAGAAG CTCTAGAAAA AGATGAAGTT GTATTTCCAA	3420
CTATTCAAAT TTTTCATACT TCTAATTCCA ATCATGGGGT TATTGAGGGA AATGATGCCT	3480
TGACTTATTT GATGAATCAA CAACAACATT TAGAAGCAAC TGTAGAGAAA TTACAAGAAT	3540
ACCTACCGAA AGAAAAACAG TTAAATTAT TGCAGCAACC TCCGATAACT ACCTCTTATG	3600
AAGAATTAGA GAAATTTGGT AAAGCTAATG TTGCTGAGGG TGTCTTAAA AAAGTGAATC	3660
ATCAAATTAA CAGAGTTCAT GAATTAGAAA GACACATTCA AAGTAATAAT GAGGAAATAG	3720
AGCGATTAAT AAAGTGGGAA AAATTAGAAA TTGTTCTCTG GAATTAGAA CAATTTTCTT	3780
TCTGTAAAGG AAAAGTCGGA ACAATTCCAA GGACTGAAGA TAATCGCTTA TACAATAGTC	3840
TTTTAGAAAA CAATATTGAA GTTCAAGAAA TATTTTCTAA TGATAGAGAG TACGGTGTG	3900
TTGTTTTCTA TCAGTCTAGT TACTCTATAG ATTTTGATGA ATACTTATTT GAACCATTTG	3960

1254

ATTATTCTAG AAAGGAATTA CCGAAGCAGC GAGTAGTAGA TTTAGATCAA GAAAACATGC	4020
AGTTAATAAC TGAAAAAGAG AATATTATCG CATCGTTGCA AGATTCAAAG AAATATTTGA	4080
TAGATTTACA ATGGCAAATA GACTATATTT TATCTATCTA TGCTCGTCAA ATCTCTAAGA	4140
ATAACTTTTT GTGCACTCCG CATCTAGTTG CATTAGAAGG ATGGATAGAA GAAACTCGTA	4200
TTTTATATTT TATAAAAGTT ATGGATGAGC ATTTTGGACA TTCTATTTAT ATTTATGAAT	4260
CGGAACATT GACGGATAAT CAAGATGAAA TACCTATCAA ATTAACGAAT CATTCTTTAA	4320
TTGAACCATT TGAATTATTG ACAGAAATGT ATGCTCTGCC CAAATATTAT GAGAAAGATC	4380
CTACACCTGT ATTAGACCA TTTTACTTTA CATTTTTTGG AATGATGGTT GCTGATTTAG	4440
GCTATGGTTT ACTATTGTTT TTAGGAACAA TGTTAGCATT AAAAATTTT CATCTACCTT	4500
CAGCAACTAA GAGATTTTAA AAATCTTTA ATATATTAGG GGTAGCCGTT GCAATTTGGG	4560
GTGGAATCTA TGGCTCATTT TTTGGATATG AGTTGCCATT TCATCTGATA TCTACAACCT	4620
CTGATGTCAT GACTATATTA GTAGTGTCAG TTGTGTTTGG GTTTATTACA GTATTTGCAG	4680
GTTTGTTAGC TTCAGGACTA CAAAAAGTAA GAATGAATAA ATATGCAGAA GCATATAATT	4740
CAGGATTTGC GTGGTGTGTT ATTCTG	4766

(2) INFORMATION FOR SEQ ID NO: 234:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2484 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 234:

CCTTTTAGAA AAAATTAAAG AATACGACAC CATTATCATT CATCGTCATA TGAAACCAGA	60
CCCTGATGCC TTGGGAAGTC AGGTGGGATT GAAAGCCTTG CTGGAACATC ATTTCCCAGA	120
AAAAACCATC AAAGCCGTCG GTTTTGATGA ACCAACTCTT ACTTGGATGG CTGAGATGGA	180
TCTTGTGAA GATAGAGCCT ACCAAGGCGC ACTTGTCATC GTCTGTGATA CAGCTAATAC	240
TGCTCGTATC GATGATAAGC GCTATAGTCA AGGTGATTTT CTCATTAAAG TTGACCACCA	300
TCCAAATGAT GATGTATACG GTGACCTGTC TTGGGTCGAT ACTAGTTCAA GTAGCGCTAg	360
aGaTGATTAC CCTATTGACC CAAACAACCC AACTAGCCTT GGCAGATCGC GATGCTGAGT	420
TGCTCTTGC AGGAATTGTC GGTGATACAG GTCGCTTCCT CTACCCTTCT ACCACTGCAC	480
GGACTCTTCG CCTGGCTGCT TATTTGAGAG AACATAACTT TGACTTTGCG GCTCTCACTC	540
GC AAAATGGA CACTATGAGC TACAAAATTG CTAAACTGCA AGGCTACATC TACGACCATC	600

1255

TGGAAGTGGA	TGAAAAATGGT	GCTGCTCGCG	TTATCCTGAG	TCAGAAAATC	TTGAAACAAT	660
ACAATATAAC	CGATGCTGAA	ACTGCGGCCA	TTGTAGGTGC	ACCTGGACGC	ATTGACAGAG	720
TGAGTCTCTG	GGGAATTTTT	GTCGAACAGG	CTGATGGCCA	CTACCGAGTT	CGCTTACGCA	780
GTAAGTCCA	TCCTATCAAT	GAAATTGCCA	AGGAGCATGA	TGGTGGAGGC	CACCCCTCTAG	840
CAAGTGGTGC	TAATTCCTAT	AGCCTAGAAG	AAAACGAAAT	CATCTACCAA	AAGTTAGAAG	900
ACTTGCTTAA	AAACTGATAA	AATACTTGCC	AAACTTTTCA	GAATCTGATA	GACTAGTATA	960
GTAACAATCT	ATGGCTCGCA	AAGAGACCAT	GGCAGAAAGG	AAATATTGCA	AAATGAAAAA	1020
AGATATCCAT	CCAGAATATC	CCCCAGTTGT	CTTCATGGAC	ACAACTACTG	GTTACCAATT	1080
CCTTAGCGGT	TCAACAAAAC	GCTCTAACGA	AACAGTTGAG	TTCGAAGGCG	AACTTACCC	1140
ATTGATCCGT	GTGGAAATTT	CATCAGACTC	ACACCCATTC	TACACTGGAC	GTCAAAAGTT	1200
CACTCAAGCA	GATGGACGCG	TGGATCGTTT	CAACAAAAAA	TACGGTCTCA	AATAATGATA	1260
AGAGAACAGT	TTTGCTGTTT	CTTTTTTGTT	TCTTGAAATC	AACTGCTGTT	TTCATGTTCC	1320
AGACTCATCT	GTAGGTTCTGA	TTTCCATGCT	ACTAGGCAGG	AAGGAAATAG	CTGTTTCAAC	1380
ACGTCCATAA	TGAGCTATAC	TATTGTCACG	AACCACACTT	TCATTGATGG	TCCAAGTGGA	1440
ATTCAATTTT	TTAAAAGCTT	CTCGGACTTT	TTCCAAATCT	TTGGAGGCAA	TGGCCTGCTC	1500
TAAGGTTTCA	AAACGAGGAC	TTATACTCAT	CTGCTTTCAA	AAAGCATTCT	AGTCCATCTC	1560
CGATTACCGA	TGGACTTTAT	CACCTCCTTC	TCCAGTCCTT	GTATGACATC	TTGAAGTTGA	1620
TTTCATGACAT	CTTCCAAAGT	TCGAAAGGCT	TTATTCTTAA	ATCCACGTTT	ACGAATCTCT	1680
TTCCACACTT	GTTCAATGGG	TTTCATCTCTG	GTGTGTATGG	AGGAATAAAG	GTAAATCAA	1740
TATTAGTCGG	AATATTTAAG	GTACTTGATT	TATGCCATAT	AGCATTGTCC	ATAACGAGTA	1800
AAAGGATAAG	CTTGTGAAAG	CTCTTCTAAA	AAGGCGTTCA	TCCACACTCC	TTTTTATAAA	1860
CCTGAAATAA	GGCATCAATT	GTAACAAATT	CTCCTGCCTC	TGTAGCCTTC	AAATGACGGG	1920
CAAGAAAGGC	TTTCTCTTCC	TCAACTGTCA	TATATGCATG	GTTACGACCA	CCACGTGTTT	1980
CTTGAAGGAG	AGAGTCGAGT	CCGAACCTCT	CATATTTTTT	TACGTTTCGC	CAAATCGTTG	2040
TTTGATTACA	GTCTAAAAGC	TCTATAATCT	CTTTATAAGA	TTTGCCCATC	AGACGAAATA	2100
TAGTAGATTG	AAACTAGAAT	AGTACACCTC	TACTTCTAAA	ACATTGTTAG	AAATCGATTT	2160
GTCTGTCTCT	TGTTTCATTT	TACTATAGAA	CGATTTGAAG	GCGTTTATAA	TATTTAGCTG	2220
TACGAGAGTC	TTTTAAAAGT	GTTTGTGATG	TTTGATTTTC	TTCTTTAGTT	GATTTTCATAT	2280
TACTATTATA	TAATGCTTTT	TGATTTTAGT	CTGGTATAAA	TATTGCTTTC	CTCCAAAATG	2340

1256

GTCATAGTTT TACTGGCAAA TCTAACATAT CACGGATAAA TTAACAAGTG ATTTCTGAAT	2400
TGCTAAACAT TTTCTTTTCT TATAGCATAC TTAAAGATT TGTCTTTGAG AAAGATATTT	2460
CCAAGAAAAA CGTTCGTTTT TTGG	2484

(2) INFORMATION FOR SEQ ID NO: 235:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 235:

CTAGATATAG CTATAATTTT ATTTATAACA AGAGGATAGA AATGACCGAA TTAGAAAGAA	60
AAAATCGAAA AATTAGCTAA GAAATATTCT GATAACTTAA ACATCAAAGT TCAAGAGAGA	120
GTTCGTGAAA TGGCAATGA TAATAAGAGC CATTATTTGA TATACAGAGT TTTAGGTATT	180
TCATTTGAAG AAGGAGAAAA TATCGATTG TATCAAAATA AAGGTCGTTT TTTATACAAA	240
TATGCTGGTT CATTTTGTAGA AGAAGCTGCA GTACTATGCT TTAACGAAAA ATTTGGTACA	300
GAAATACTT AAAAAGTTAA CATTCCTAAT TCTGAAAGTA CAAACCTAA GACTTTTGAA	360
ATTGATTGTT TAGTCGGAGA AAAACACGCA TACGAAATAA AATGGTGGGA TGCAACTACA	420
GATGGAGACC ATATAACTAA AGAACACACT AGAATAAAG TTATTCATAA CAAAGGATAT	480
ATACCAATTC GGTTAATGTT CTACTATCCA AATAGAATC AAGCTATAAA AATTCAGCAA	540
ACTTTAGAAA CATTTGTATAA CGGTATTGGA GGGAAATATT ATTATGGAGA TTCTGCCTGG	600
GAACATTTAA GAGCAGTGAC CGGTATTGAT TTACTTAGTA TTCTAACAGA TATTGCAAAT	660
AAAAAACAG GGGTAAAAATC AAAATGACAG TATTAAGAGG AGATAACTTA GAAATATTAA	720
AAACTATTGA ATCCTCAAGT ATTGATTAA TCTATATGGA CCCTCCTTTC TTTACACAGA	780
AAACCCAAAA ATTATCTAAT AACAAAAATA TTATGTATTC ATTCGAAGAT ACGTGGACTT	840
CGATTGAGGA TTACAAAGAA TTTTGTCTG TAAGATTAGA AGAATGCAAA AGAGTGCTAA	900
AAAATAGTGG CAGTATTTTC GTTCATTGTG ATAAAATTGC AAATCATCAT ATTAGATTAA	960
TTTTAGATAA TATCTTTGGA GTAGATATGT TTCAAAGCGA AATTATATGG AACTATAAAC	1020
GGTGGTCTAA TTCAAAAAAG GGATTATTGA ACAATCATCA AAACATTTAC TTTTATTCAA	1080
AGTCAAAAGA TTTTAAATTT AATACAATTT TTACAGAGTA TTCTTCTACT ACAAATATCG	1140
ACCAAATACT AGTGAACGA AACGAGATG GAAACTCTAA AACTATATAT AAGGTTGATA	1200
ATAATGGTAA CTATATTCTA GCAAAAGAGA AAAATGGAGT TCCCCTTTCA GATGTTTGGG	1260

1257

ATATACCATT TCTTAATCCA AAAGCTAAAG AAAGAGTAGG TTATCCTACA CAAAAACCTA	1320
TTCTGTTATT AGAACAAATT ATAAAGATTG CTAAGTATAA AAATGATATA GTTTTAGACC	1380
CGTTCTGTGG AAGTGGAAGT ACTTTAGTAG CCTCCAAGAT TTTGAATAGA AATTATATGG	1440
GGATTGATTT ATCTGAGGAA GCTATCAATA TAACTCAGCA ACGTCTGGAA AATGTTATAA	1500
AAACAAGTTC AAATTTATTG AATAAGGAA TCGAAGCATA TAGAACCAA ACTGAGGAAG	1560
AGGAAAACAT TCTTAAATTA TTACAGGCAA AAATTGTTCA AAGAAATAAA GGAATTGATG	1620
GTTTTTTACC TAAACATTTT CAAAAAAAC CGATACCTAT AAAAATTCAA AAAAATAATG	1680
AATGCTGAA TGAGAGTATC TCTTTATTAC AGAATGCTAT AAATCCAAA AAATTTGATT	1740
TTGGAGTAGT TATAAAAACT CATTCC	1766

(2) INFORMATION FOR SEQ ID NO: 236:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 748 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 236:

CCGAAATCA AATTCAAACC ACGTCAAGT CGCTTGGCG TACTCAAGTA CAGCCTCCCG	60
CTAGTTTCCT AGTTTGCTCT TTGATTTTCA TTGAGTATTA AACTAAATTA AATAATATTA	120
GC GCGGAGAA TTTCTAATTC TTCCTTGGTC AAGCGACGCC ATTCCCCTCG TTCTAGGTTT	180
TCATCTAATA CTAAAGTTC CATAGTCAAT CGTTGCAAGT CCACCACTTC CTGCCACAG	240
TAGCCACCA TACGCTTGAT CTGATGAAAC TTCCCTTCTG CAATGGTCAC ACGGATTTGG	300
CTTTGATTCT TTTCTGTATC TATGGATACA AGCTCCAGTA TAGCGGGTTG ACAGGTAAAG	360
TCTTTGAGAG GAATACCTTC AGCAAAATGTC TCCACATCTT CTTGGGTCAT GATTCCCTTG	420
ACTTGTGCCA GATAAGTCTT GTCCACATGA CGCTTGGGCG AAAGAAGAAC ATGAGCCAGC	480
TGACCATCAT TGGTCAAGAG CAAAAGACCA TCGGTGTCAA TATCCAAGCG TCCTACTGGG	540
AAAATTCCT TACTCCGCGC CAAGTCATCC AACAAGTCCA GAACGGTTCT GTGCTTGGGA	600
TCCTCAGTCG CTGAGATAAC TCCTTTGGGC TTGTTTATCA TGTAGTAGAC AAATCTTCA	660
TACTCCAACA CTGCCCATC AAAGCGAATC TCATCTATTT TTTTATCAAT CTGCAATTTA	720
GCTGATTTT CTTTTTGACC ATTACAG	748

(2) INFORMATION FOR SEQ ID NO: 237:

1259

(2) INFORMATION FOR SEQ ID NO: 238:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 904 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 238:

TACCCGCTTC TTCAAGAGT TGGAGCAGGG CTGTTTGCG ATCTTTGTC ATAGTTCTTC	60
CTTTTAACGG CGTTTCGAA GCACTTTATA GACAGCTAGT GCTAATGTAT AGTCTACCAT	120
ACTATGGATA ATTGTACCAA ATCCAAC TAGTACAAATAGA ACATAAAACA TATTTCTTAC	180
ATTGGTACCA GAAGTTGCGT AAAAAACGAC ACAGGCCAAT ACTTCAGCAA GGCATGAAC	240
AACAGCCAAA ACAAAGTTGA AAATCCAGGA AGATTTTGGT TTATCTAGGG TATCGGGGAA	300
TTTTTG TAGG TAAAGAGCTC CTAAAGCACC AAAAGATATA TGGGAAAAAG CCCGAAAAAC	360
GATAACCATG GGATAGCCAG CCATCAAAAA TCCAAACTA GAGGCTAGGA TGACAAAAAC	420
TGCCATCAAG GCGACAAGA ACATGGCTAT AAAATAGCG ATGTGGCTCC CCAAAGTATA	480
GGAAGCAGGT GGAATGACAA TCTTGAAAGG CATAACAATT GGAATCAAAA TCGCAATAGC	540
CGTTAAAAGG GCTGTCATTG TCATAAATTG TGTCTTTTC CGTGTATTCA CAAGAATCTC	600
CTTTTAACT GCATATACAC TAGTATGGTA CAATAAACCA GACAATAAAG CAAGAATTTA	660
CTTGGGTTTA TAGATCATTT TTTAGTTAAA AGTTATAGTA GATTGAACT AGAATAGTCC	720
ACCTCTACTT CTAACACATT GTTAGAAATC GATTGGCTG TCCTGATCGA TTTGTCCTGT	780
TCTTATTTTCG TTTTACTATA GTAAAGATTT CATTAAAAAG AAAGTGTATA GAGCAAAATC	840
TCCACCTTCA GGTTCGAAA GCGGAGATTG TTTnTTATTT TTTCCAGGGT TTGTAGTCGT	900
GGGA	904

(2) INFORMATION FOR SEQ ID NO: 239:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 946 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 239:

CACTCAAACA TGACTTATAT CAAGACGGAT GGACTTCAAG ACGATGCCAA TCGCTTGAAT	60
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1260

CGTAACATTC AGTTTGGTGT TCGTGAATTT GCAATGGGAA CAATCTTGAA CGGGATGGCC	120
CTTCATGGTG GACTTCGTGT ATACGGTGGA ACTTTCTTCG TCTTCTCTGA CTATGTGAAG	180
GCAGCTGTCC GCTTGTACGC CTTACAAGGA CTTCTGTGA CTTATGTCTT TACCCATGAT	240
TCAATCGCAG TTGGGGAAGA TGGTCCGACT CATGAACCAG TTGAGCATTT AGCAGGTCTT	300
CGTGCTATGC CAAATCTAAA TGTTTTCCGT CCAGCAGATG CGCGTGAAAC GCAAGCAGCT	360
TGGTACCTTG CAGTGACAAG TGAGAAAACA CCAACTGCCC TTGTCTTGAC ACGTCAAAAT	420
TTGACTGTTG AAGATGGAAC AGACTTCGAC AAGGTTGCTA AAGGTGCTTA TGTGTATAT	480
GAAAATGCAG CCGACTTTGA TACCATCTTG ATTGCGACAG GTTCAGAGGT TAATCTTGCT	540
GTCTCAGCTG CTAAGAATT GGCTAGTCAA GGCGAAAAA TCCGCGTAGT CAGCATGCCA	600
TCTACAGATG TCTTTGATAA ACAAGATGCA GCTTACAAGG AAGAAATCT TCCAAATGCA	660
GTCCGCCGTC GTGTTGCAGT CGAAATGGGT GCAAGTCAAA ACTGGTACAA ATATGTTGGT	720
CTCGATGGTG CCGTCTAGG TATTGATACT TCGGAGCCTC TGCCCCAGCA CCAAAAGTAT	780
TGGCAGAATA TGGCTTACT GTAGAAAATC TTGTAAAAGT TGTTCGAAAC TTGAAATAAT	840
CCTAAAAATC AGGGCGTAAG CTCTGGTTT TCTTACCAGA AAAGTAAGGT ACAATCTTGT	900
AAAAGTAGCT GAAATTTGAT ATAGTAGTCC TATGTAAAAG ACAAG	946

(2) INFORMATION FOR SEQ ID NO: 240:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2764 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 240:

CGGGGCTCCc TAGTTCCTAG GGAGCTATTT TTGTTTTTTC AAGAAGTTAT CTTCTTGAT	60
TTTATACTCA ATGAAAATCA AAGAGCAAGC TAGGAACTA GCCGTAssTG CTCAAAACAC	120
TGTTTTGAGG TTGTAGATAA GACTGACAAA GTCAGGAACA CATATCTACG GCAAGGCGAC	180
GTTGACGCGG TTTGAAGAGA TTTTCGAAGA GTATTAGTTG TGAATCTGGT GCAGTCGTCC	240
CAGATTATTC TTATTAGTAG GGTCTTGTTC TCTATATCCC CTCGTAGTTA ACAAGACCTT	300
GAGCATTTTA GAAAGAGGAA TCTATGTCTA CGAAATATAT TTTTGTAAC TGGTGGTGG	360
TATCGTCCAT TGGGAAAGGG ATTGTGGCAG CGAGTCTAGG CCGTCTCTTG AAAAATCGTG	420
GTCTCAAAGT AACCATTCAA AAGTTTGACC CTTATATCAA TATTGATCCG GGAACCATGA	480
GTCTTACCA GCACGGGGAA GTTTTTGTGA CAGATGACGG AGCTGAGACA GATTGGACT	540

1261

TGGGTCAC TA TGAACGTTTC ATCGATATCA ATCTCAACAA ATATTCCAAC GTGACAAC TG	600
GGAAAAATT TA CAGTGAAGTT CTTTCGTAAAG AACGCCGTGG AGAATACCTT GGGGCAAC TG	660
TTCAAGTCAT TCCTCATATC ACAGATGCTT TGAAGAAAAA AATCAAGCGT GCCGCTCTAA	720
CGACCGACTC TGATGTCATT ATCACAGAGG TTGGTGGAAC AGTAGGAGAT ATCGAGTCCT	780
TGCCATTCCCT AGAGGCTCTT CGTCAGATGA AGGCAGATGT GGGTGCGGAT AATGTCATGT	840
ATATCCATAC AACCTTGCTT CCTTACCTCA AGGCTGCTGG TGAATGAAA ACCAAACCAA	900
CCCAACACTC TGTCAAAGAA TTGCGTGGCT TGGGAATCCA ACCAAATATG TTGGTTATTC	960
GTACAGAAGA GCCAGCTGGT CAAGGAATTA AAAATAAACT GGCCCAAGTC TGTGATGTGG	1020
CACCAGAAGC CGTTATCGAA TCGTTGGATG TTGAACACCT TTACCAAATT CCACTGAACT	1080
TGCAGGCACA AGGGATGGAC CAAATTGTTT GTGATCATTT GAAATTAGAC GCACCAGCAG	1140
CGGATATGAC AGAATGGTCA GCCATGGTGG ACAAGGTCAT GAACCTCAAG AAACAAGTTA	1200
AGATTTCCCT TGTGGTAAAG TATGTGGAGT TGCAAGATGC CTATATCTCA GTGGTCGAAG	1260
CCTTGAAACA CTCTGGCTAT GTCAATGATG CAGAAGTTAA AATCAATTGG GTCAATGCCA	1320
ATGATGTGAC AGCAGAGAAT GTAGCAGAAC TCTTGCTGTA TGCGGACGGG ATCATCGTAC	1380
CAGGTGGTTT TGGTCAACGT GGTACAGAAG GGAAAAATCCA AGCCATCCGC TATGCGCGTG	1440
AAAATGATGT TCCAATGTTG GGAGTCTGCT TGGGAATGCA GTTGACATGT ATCGACTTTG	1500
CTCGTCACGT TTTAGGTCTT GAAGGTGCCA ATTCTGCAGA GCTTGACCA GAAACAAAAT	1560
ACCCATATCAT TGATATCATG CGTGATCAGA TTGATATTGA GGATATGGGT GGAACCCCTC	1620
GTTTGGGACT TTATCCGTCT AAGTTGAAAC GTGGCTCTAA GGCTGCTGCT GCTTATCACA	1680
ATCAAGAAGT GGTGCAACGC CGTCACCGTC ACCGTTATGA GTTTAATAAT GCCTTCCGTG	1740
AGCAGTTTGA GGCAGCAGGT TTTGTCTTTT CAGGAGTTTC TCCAGACAAT CGTTTGGTAG	1800
AAATCGTGGA AATTCCTGAA AATAAATTCT TTGTAGCTTG TCAGTATCAC CCTGAACTGT	1860
CAAGCCGTCC AAACCGACCA GAAGAACTCT ACACTGCCTT TGTTACTGCA GCAGTTGAGA	1920
ACAGCAATTA GCAAAATCAG AACCTTTGAG AAAAATCTCA GAGGTTTTTT GCATACGATG	1980
ATATTGCAGT ATATCTGAGG TAGGGGTCCT CTGTATGTAC CTGCTACCGT TGAATCAAT	2040
AGCGACTCCC TCTTGCCCTG TGCTAGTGAA TGGATTTATC AGTATATTGA AATGAAATAA	2100
AATTTGAACA AATTAATTCT GAAAGCCAAA TCAATTTCTA GCAAAGTTTT AGGAACTGGA	2160
TTGTATAGTG AATTGAAATA AGATGTGAAC ATCTCTATCA GGAAAGTCAA ATTAATTTAT	2220
AGAAATATTT TAGCAGTCAA GATGTACTGT TATAGATTCA ATACATTATA CTTTTTTAAT	2280

1262

TTAATCCACT ATAGTAAAAT GAAATAATAA CAGGACAAAT CGATCAGGAC AGTCAAATCG	2340
ATTTCTAACA ATGTTT TAGA AATAGAGGTG TACTATTCTA GTTTC AATAT ACTATCCCAA	2400
ATCATTCTATA CCTCTCTCAA CTAGATGTAA CTTACAAAAC CCCTGACCTC ATGAGCCACT	2460
TTCTTCCTCC TCATGAGGTC AGTTT TACTT TCTGCTGTTC CAGTATCGTT TTTCTCGCT	2520
AGATTTCTC AAAAGGGCAG ACTCCTCCCT TGGTGCCTCA CACGATTTT TCATCTCGAC	2580
TGTTCTTTAA TGCATCATT ACGACGCTT TCTTCTAGGT GGTTCATAAG GAACAGGAAG	2640
ATTCAGGTG ACTTTTCTAA TCCTAGAATA AAGTGTGAA AACAAATTCG AATAGGCATA	2700
GAGACTAGAC AATTGAGGA GCTGCTTGGC TCCTGTTCGA ACACATTTTC CCACCACGTG	2760
AAGA	2764

(2) INFORMATION FOR SEQ ID NO: 241:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1682 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 241:

CCGTTTTTTT CATGTTCAG TACTACAAC TACGTTGTAG CGCCCTGCAC ATTGGTTCGT	60
CTTGTTTCAGT TTTC AAGGT CTTGTCACT TGCTTCTCTC AAGCGACAAC TATATTAGTA	120
TATCACAAC TCTTCGCTT GTCAACACTT TTTGAAGAT TTTTAAGTTT TTTTAACTT	180
TTTTTCATCA AGTGGTCTG ACGCAACATA CCATAGTCCG TACGGGATTC GAACCCGTGT	240
TACCGCCGTG AAAAGGCGGT GTCTTAACCC CTTGACCAAC GGACCTGAGT TGTTATTTTC	300
AACCTT TACT ATTATACAGT CTTTTCAAAC TTTGTCAACT ACTTTTTTAA ACTTTTTTTA	360
TTAATTTTAC AACAGCTTCA GTTCGAGCTG TATGTGGGAA CATATCGACC GACTGGATAT	420
AATGAAGATC ATAGACTTCT ACTAAGCGTA CCAAATCACG AGCCAAGGTC GAAACATTAC	480
AAGAAATATA AACCATTTTT TCTGGTACAT AAGTAAGAAT AGTATCTAAT AACCTATCAT	540
CCAGACCTGT ACGTGGTGGG TCAACAATCA AAGCATCTGC TCGGTAGCCT TCCTTGTACC	600
AACGAGGAAT AATCTCTTCT GCCGTTCAG CTTCATAATG AGTATTGTCA AATCCCATT	660
TTTTAGCATT TCGCTTGGCA TCTTCAATAG CTTCTGGAAT AATATCCATA CCTCTGAGTG	720
TTTTTACTTT CTTTGCAAAG GCAAATCCAA TCGTTCCAAC TCCACAATAA GCGTCAATCA	780
AATGGTCTTC TTTATCAACA TCCAGCGCTT TTAGTGCTTC GCTATAGAGG ACTTCTGTTT	840
GCTCAGGATT TAGTTGATAA AAAGCTCGAG GGGATAGTGA AAATTCATAA TTGAGTACAC	900

1263

CTTCTTGAAT ACTCTCTTGC CCCAGATAA TCTCTGTCTT TTCACCATAT ATCTCACTGG	960
TTTGTAGCTGT ATTTGTATTA ACAGCTACTG TCACAACCTC TGGGAAATCT TTAACCAACT	1020
CTTTTACCAA TTGAGTTAAA TTAAGCTGGC GGTTTGTAAAC AATAATAATC TGAACCTGTC	1080
CGGTCTTTCT CGCGCGTCGG ACCATAATAG TACGGACACC TAGAACTTTT CTCTCATCCG	1140
TGATTGGAAT CTGGTGATAA GTAAGTAATT CTGCTAAGCG ATTAGCAATC ACTTGGGTTT	1200
CCTTATCTTG TACCAGGCAG TCTTTCAACT CTACTAAATA GTGAGAGTTT TGTGCATATA	1260
AGCCCGCCTT GACCTGATTT TTAAATTTTC GAGTCTGAAA TTGTAACCTA GCTCTGTAAT	1320
ATTTTGGTTC CTGCATTCCA ATAGTTGGAC GAATTCATA ATTTTCATAT CCTGCAGGAG	1380
CAAATTTTTT CAGCGCTTGA TGAAGTAAGT CCGTCTTGAA CTCCAGCTGC TTATCATAAT	1440
GCAGGTGCAT GATTGGCAG CCTCCGCATT CATTATAAAT AGTACAAGAT GGCACAATTC	1500
GAAATTTAGA CTTCTTGTG ACCTTCAGTA ATTTTGCTTC AACAAAGTTG CGTCTAATAG	1560
AAGTAATCTG ACAATAGATA TCTTCGCCTT TGAGAGCTCC TGGTACAAAG ACTAATGTTT	1620
TTTGGTAAAA GCCGATTCCC TCACCGTTAA TTCCCATGCG CTTGATTTTT AATGGTATTT	1680
TT	1682

(2) INFORMATION FOR SEQ ID NO: 242:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2524 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 242:

TTAACTTTGG TCAATTCCTT AAAGTCATCC TCTGTAAGCA TGTCTAACCA TTGATGTTTC	60
CCTTTATTGC TAAATCACC AATCCGACT ACAGCTATAT CTAAATCTTT CCAACTATTT	120
TTCAAATTTT CAAATATCT TGATTGCAA ATACCATCTG CTAACAATTT ATTTCTTGC	180
ACAATCGTTG CATTCATAAA TGTACACTCT CCATGAAATT TTCTAGACAT TTCATAAATC	240
AGTGATTCA CATGGTATTT AGCGTGTATG TGA TAGGAC CACCTGCTAG AGGATAGAAG	300
TGAACATTC GGACACTTTT ACTGTGAAT AAATCTACTA AATTACTTAA ACTTTTCCCC	360
CAAGAAAAGC CAATTTTCAT ATTATCATCA ATTAGATTCC TAAGGACGCC TGCTGCAACT	420
TGAGAAATTC TTTCAGATAA AATTGTTGGA GTATCATCAA ATTCATTTGG AATAATTTCT	480
AACTTTCCA AACTGTATTT TTCTTTTACA TAATTTTCCA ACTTAAACAT ATTGGTATCA	540

1264

AAATTCTCTA TTTCAATTTT AACAAATTCCT ACATTCCTTG CTTCTGTAA CATTCTACTA	600
ATAGAGGTTT TATAAATTCC TAATTTTGCT GCTATTGTG ACTGATTAA GTTTTCAATA	660
TAATACAGAT AAGCAATTTT AGAAAGCAGT TTATTCCTAT CTTGATTCAT ACACCTTAACC	720
TCTTACGAAA CTACCTTAAC CATTATCCCA GCATTTTCTA ATGTAGCTAT ATTTTGTTTA	780
GAAAGTTTTT CGTCTGTAT TACTTCATAG ACTTGACTTA AAGCAAATCT TCTTACTGTA	840
CCTCTTTTAT CAAATTTACT TGAGTCAGTT AGGACAATGA CTTTATCCGA CACTGCTGAA	900
ATATATTGAA CTACCTCACT GCGCATTAAT TCTTTTCCGG TAAAGCCCAT CTCTTTATCG	960
TAACCATCTG TCCCAACAAA AGCTTGACAC ACATGAAAAG TCTGTATCAT TTCTTTTAAT	1020
AAAGGTCCTA CAGTCACCTG TGAATCTTTC TGAAACTCAC CACCAAGAAC AATAACACGA	1080
CATGAATCAT AAGCTCTCAC AAAATTTGCT ATAAAAACG AATTTGTTAC AATCGTAACA	1140
TTTCTTTTTT GCTTGCAAT TTCCTCAGCA AGTAAAGCAC AGGTCGATCC AGATTCTATC	1200
ATTATGTTT CATTATCTGA CACCAATTTT ACTGCTTCCT GAACAATTTT TCTCTTAGTT	1260
TCATAATTA TTAGACAAAC TACATTTAAG TCATCTCCAC TATTTAATAC AGCATATCCA	1320
TGCTCTCTGT GTAATAAAC TTTTGACTCT AATTTATCTA AATCTTTTCT AATCGTTACT	1380
TTCGATACAT TTAATTTTTC CGATAATGTA TTAACGTCGA TCTTTTCATA TTCTGATACT	1440
AATTTAATA TTTGTTCCAA TCTTTTCATT TTACACCTCC GTTTTATTCT ACCAAAATAA	1500
AAAGCAAAAA ACAACAAAT AACCTTTCGT TCGTAATTGT TTTTCTTTCG TTTTGTGAT	1560
AGGATAGACT TATGAAGAG AGGAATCTT ATGGAATAT CTAAAGGAAT TATTTTAAAT	1620
ATTCAACACT TTTCAATTCA TGACGGTCCG GGTATTCTGA CAACTGTTTT TTTAAAAGGA	1680
TGTCCTCTGC GCTGTCCATG GTGTTCTAAT CCTGAATCTC AAAGAATGAA ACCTGAAAAA	1740
ATGAAAGATG CTCAACGAGA GAAATTCACC TTAGTCGGTG AAGAAAAGAC TGTAAGAA	1800
ATTATTACAG AGGTATTAAA AGACAAAGAA TTTTACGAAG AATCCGGTGG AGGTTTAACT	1860
TTATCAGGAG GTGAAATATT TGCTCAGTTT GAATTTGCTA AAGCCATCTT AAAATCAGCT	1920
AAAGAATATC ACATACACAC TGCCATTGAA ACTACTGCCT TTGTTGATCA TGAAAAATTT	1980
ATTGATTAA TTCAATATGT GGATTTTATC TACACAGACC TAAAACATTA TAATTCTATA	2040
AAACATAAAA AAGTGACTGG GGTTTTAAAT CAAATGATTA TAAAAACAT TCATTATGCT	2100
TTTTCACAAA ATAAAACTAT CGTTTAAAGA ATCCCAGTTA TTCCTAATTT TAACAATAGT	2160
TTAGAGGATG CAGAAAAAT CGCTACTCTA TTTAACTCAT TAAATATCGA CCAAGTTCAA	2220
CTACTCCCTT TTCATCAATT TGGTGAAAAC AAATATCGTT TATTAAATCG GAAATATGAA	2280
ATGGATGGAA TCAACGCACT TCATCCwGAA GATCTTATTG ATTATCAAAA GGTATTCTG	2340

1265

AACCACCATA TTAATTGTGA TTTCTAGTTT ATTTCCCTGA AATGCTCTAG CTATTTGCAG	2400
ATAACAAGCA TCTATAATAC ATACTTAACT TTTCAAAGG TTTAGCTAAA AAATTTTAGC	2460
CAACCTTTT CTATTTTACC TTGCTCTAGA ATTTTAAAC TGCTATACTT ATCACAAAA	2520
AACG	2524

(2) INFORMATION FOR SEQ ID NO: 243:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2359 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 243:

CGTGCTTGGG GGCTTGTGT CAAAAGGAAA GTCAGACAGG AAAGGGGATG AAAATTGTGA	60
CCAGTTTTTA TCCTATCTAC GCTATGGTTA AGGAAGTATC TGGTGA CTTG AATGATGTTT	120
GGATGATTCA GTCAAGTAGT GGTATTCAC CTTTGAACC TTCGGCAAAT GATATCGCAG	180
CCATCTATGA TGCAGATGTC TTTGTTTACC ATTCTCATACT ACTCGAATCT TGGGCAGGAA	240
GTCTGGATCC AAATCTAAAA AAATCCAAAG TGAAGGTCTT AGAGGCTTCT GAGGGAATGA	300
CCTTGGAAACG TGTCCCTGGA CTAGAGGATG TGAAGCAGG GGATGGAGTT GATGAAAAAA	360
CGCTCTATGA CCCTCACACA TGGCTAGATC CTGAAAAAGC TGGAGAAGAA GCCCAAATTA	420
TCGCTGATAA ACTTTCAGAG GTGGATAGTG AGCATAAAGA GACTTATCAA AAAAATGCCG	480
AAGCCTTTAT CAAAAAGCT CAGGAATTGA CTAAGAAATT CCAACCAAAA TTTGAAAAAG	540
CGACTCAGAA AACATTTGTA ACACAACATA CAGCCTTTTC TTATCTAGCG AAGAGATTTG	600
GGCTTAATCA ACTTGGTATT GCAGGTATCT CTCCTGAACA AGAACCAAGT CCACGACAAC	660
TAACAGAAAT TCAGGAATTT GTTAAGACCT ATAAGGTAA AACGATTTTT ACAGAAAGTA	720
ACGCTTCTTC AAAAGTAGCT GAAACTCTTG TCAAATCAAC AGGTGTGGGT CTTAAAACTC	780
TGAATCCTTT AGAGTCAGAC CCACAAAATG ACAAGACCTA TTTAGAAAAT CTTGAAGAAA	840
ATATGAGTAT TCTAGCAGAA GAATTAAAGT GAGGAAAGAA TGAAATTA TAAAAATAT	900
CTAGCAGGTT CAGTGGCAGT CCTTGCCCTA AGTGTGTTT CCTATGAGCT TGGACGTTAC	960
CAAGCTGGTC AGGATAAGAA AGAGTCTAAT CGAGTTGCTT ATATAGATGG TGATCAGGCT	1020
GGTCAAAGG CAGAAAACCT GACACCAGAT GAAGTCAGTA AGAGGGAGGG GATCAACGCC	1080
GAACAAATTG TTATCAAGAT TACGGATCAA GGTATGTGA CCTCTCATGG AGACCATTAT	1140

1266

CATTACTATA ATGGCAAGGT TCCTTATGAT GCCATCATCA GTGAAGAGCT CCTCATGAAA	1200
GATCCGAATT ATCAGTTGAA GGATTGAGAC ATTGTCAATG AAATCAAGGG TGGTTATGTC	1260
ATTAAGGTAA ACGGTAAATA CTATGTTTAC CTTAAGGATG CAGCTCATGC GGATAATATT	1320
CGGACAAAAG AAGAGATTAA ACGTCAGAAG CAGGAACGCA GTCATAATCA TAACTCAAGA	1380
GCAGATAATG CTGTTGCTGC AGCCAGAGCC CAAGGACGTT ATACAACGGA TGATGGGTAT	1440
ATCTTCAATG CATCTGATAT CATTGAGGAC ACGGGTGATG CTTATATCGT TCCTCACGGC	1500
GACCATTACC ATTACATTCC TAAGAATGAG TTATCAGCTA GCGAGTTAGC TGCTGCAGAA	1560
GCCTATTGGA ATGGGAAGCA GGGATCTCGT CCTTCTTCAA GTTCTAGTTA TAATGCAAAAT	1620
CCAGCTCAAC CAAGATTGTC AGAGAACCAC AATCTGACTG TCACTCCAAC TTATCATCAA	1680
AATCAAGGGG AAAACATTTC AAGCCTTTTA CGTGAATTGT ATGCTAAACC CTTATCAGAA	1740
CGCCATGTGG AATCTGATGG CCTTATTTTC GACCCAGCGC AAATCACAAG TCGAACCGCC	1800
AGAGGTGTAG CTGTCCCTCA TGGTAACCAT TACCACTTTA TCCCTTATGA ACAAATGTCT	1860
GAATTGAAA AACGAATTGC TCGTATTATT CCCCTTCGTT ATCGTTCAAA CCATTGGGTA	1920
CCAGATTCAA GACCAGAAGA ACCAAGTCCA CAACCGACTC CAGAACCTAG TCCAAGTCCG	1980
CAACCGACTC CAAGCAATCC AATTGATGAG AAATTGGTCA AAGAAGCTGT TCGAAAAGTA	2040
GGCGATGGTT ATGTCTTTGA GGAGAATGGA GTTCTCTGTT ATATCCCAGC CAAGGATCTT	2100
TCAGCAGAAA CAGCAGCAGG CATTGATAGC AAAGTGGCCA AGCAGGAAAG TTTATCTCAT	2160
AAGCTAGGAA CTAAGAAAAC TGACCTCCCA TCTAGTGATC GAGAATTTTA CAATAAGGCT	2220
TATGACTTAC TAGCAAGAAT TCACCAAGAT TTACTTGATA ATAAAGGTCG ACAAGTTGAT	2280
TTTGAGGCTT TGGATAACCT GTTGAACGA CTCAAGGATG TCTCAAGTGA TAAAGTCAAG	2340
TTAGTGGAAG ATATTCTTG	2359

(2) INFORMATION FOR SEQ ID NO: 244:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1052 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 244:

TTCTTTCTGC TATAATCGTA TAAATACTT ACTTTAGGAG TTCTTATGAA AGTTGTTAAA	60
TTTGGAGGTA GTTCTCTTGC CTCTGCTAGT CAATTAGAAA AAGTTTAAA CATCGTCAAA	120
AGCGATTGAG AGCGTCGTTT TGTAGTCGTT TCTGCGCCTG GTAAACGCAA TGCTGAAGAT	180

1267

ACTAAGGTTA CGGATGCCCT GATTAAATAC TACCGCGACT ATGTTGCGGG TAACGATATT	240
AGCAAGAACC AAAGCTGGAT TATCGACCGC TATGCTGCTA TGGTTAGTGA ATTGGGACTA	300
AAACCAGCTG TGCTAGAAAA AATTCTCTAA AGCATTCACG CCTTGGCCAC TCTTCCTATT	360
GAAGAAAATG AATTCTCTA CGATACTTTC CTAGCAGCCG GTGAAAATAA CAATGCCAAA	420
TTGATTGCTG CCTACTTTAA CCAAATGGT ATCGATGCAC GCTATATGCA CCCTAGAGAA	480
GCTGGGATTG TGGTCACAAG TGAACCTGGT CACGCTCGCA TCATTCCATC AAGTTATGAC	540
AAGATTGAAG AATTGACAAA CACCAATGAA GTCCTTGTC TTCCTGGTTT CTTGGTGTC	600
ACTAAGGAAA ATCAAATCTG TACTTTCTCA CGTGGAGGTT CTGATATTAC AGGTTCTATC	660
ATTGCTGCTG GTGTCAAAGC TGACCTCTAT GAAACTTTA CGGACGTTGA TGGTATCTTT	720
GCAGCCACC CTGGTATTAT CCACCAACCA CACTCGATTC CTGAGTTGAC CTACCGTGAA	780
ATGCGCGAGT TGGCCTATGC AGGCTTCTCA GTCCTTCATG ACGAGGCTCT TCTTCTGCC	840
TACCGTGGA AAATCCTCT GGTATCAAG AATACCAACA ACCCTGACCA TCCAGGTACT	900
CGTATCGTTC TAAACACAG TAATGATGAA TTTCCAGTTG TGGGAATTGC TGGTGACTCA	960
GGCTTTGTCA GCATTAACAT GTCGAAATAC CTCATGAACC GTGAGGTTGG ATTTGGCCGC	1020
AAGGTTCTGC AAATCCTGGA AGAACCTAAC AT	1052

(2) INFORMATION FOR SEQ ID NO: 245:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 855 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 245:

CCCTCGAAAA CTAAGCCGAT GAAGTCAGAA CACTTCAATC CTGTTGCTGA CTGGTGGGAA	60
AATCGTGAAG AGATTCTGGA AGGTAAGTTC TACAAATCTA AATCATTTAC ACCTAGTGAA	120
TTGGCTGAGT TGAATTATAA TTTAGACCAG TGTGACTTTC CAAAAGAGGA AGAGGAAATC	180
TTAAATCCCT TTGAGTTGAT TCAGAATTAT CAAGCGGAAA GAGCAACTTT AAATCATAAG	240
ATTGATAATG TATTAGCTGA TATTTGTCAG TTGTTGGAGG ACAAATAATG ACACCAGAAC	300
AACTTAAAGC AAGTATTCTC CAAAGAGCGA TGAAGGGGAA ATTAGTGCCG CAAAATCCCA	360
ATGACGAACC TGCAAGTGAA TTATTAAAGA GAATTAAAGC TGAAAAAGAA AAATTATCA	420
GTGAAGGAAA AATCAAACGA GATAAAAGG AAATGAGAT ATTTGCTGGT GATGATGGGA	480

1268

AACATTATGG GAAGTTTGCT GATGGAAGCA CTCAAGAAAT TGATGTTCCCT TATGATATTC	540
CTGATACTTG GGAGTGGGTG AGGATAAAAT CAATTTATTG GAATTTTGGG CAAAATAAGC	600
CAGAGAAATC CTTTAGGTAT ATAGATACGT CTAGTATTGA TAGAAAAAAG AACATAATCA	660
ACTACAAAA TCTACAATAT CTTTCACCTG AACAAGCGCC TTCCCGTGCT AGAAAATTAG	720
TTTCGCAGAA TAGTGTCTTA TTTTCAACAG TTAGACCATA TCTAAAAAAT ATTGCTGTAG	780
TTAGAGAACT TAAAGAGTAT TTGATAGCTA GTACAGCATT TAATGTTTTG GGATACTTTA	840
CTTAACGAAA CATAT	855

(2) INFORMATION FOR SEQ ID NO: 246:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 660 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 246:

TTTAGGAAGG CTATCCGTAA TTTTACAAAG GATTTAGATA TTACAGAGGA ACATTTAGAT	60
ATTATCAAAA GAGAGATGTT TGGCGAATTT TTCAGTAGCA TGAAGTCTCT TGAATTTATT	120
GCAACGCAAT ATGATGCTTT TGAAAATGGT GAGATAATTT TTGATTTGCC GAAAATTTTA	180
CAGGAAATTA CTTTAGAGGA TGTCTTGAT GCTGGACATC ATTTAATAGA TGATGGTGAC	240
ATAGTTGATT TTACAATATT CCCATCGTAG TAACCTATTA TAATAGACAC TAGAAAGAAG	300
GGATGACAAG TATGAGAAAA AAAACAATTG GAGAGGTTTT ACGATTAGCT AGAATCAATC	360
AGGGATTGAG TTTAGATGAA TTGCAGAAAA AGACAGAAAT CCAGTTAGAT ATGTTGGAAG	420
CAATGGAAGC AGACGATTTT GATCAACTTC CAAGTCCTTT TTACACGCGT TCTTTCTTGA	480
AAAAATATGC ATGGGCTGTT GAGTTAGATG ACCAAATTGT TTTGGATGCT TATGATTCTG	540
GGAGTATGAT TACTTATGAG GAAGTAGATG TTGATGAAGA TGAGTTGACA GTCGTAGAC	600
GTTCAAGTAA GAAAAAGAAG AAAAAACAT CATTTTACC TTTATTTTAT TTTATCCTGG	660

(2) INFORMATION FOR SEQ ID NO: 247:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1805 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 247:

1269

CCGGTTGCAC AGGATCGTGC ATAGTCAACT CTTCAAGTAT AGCATATCTC CTATTTTCTT	60
ACAAGTAATA ACACCTAAAA TGAAGCTTTT TCTTTTACTT TTTTCTGCCA AGAGGCAAAA	120
AGCATGTCTGA GGTAAAAAAC GCTCATCATA ATAGGAACAC CAAGAATGGT CTTTTCATGA	180
TAGAAAATCG TCAAATAGGC TGAAAAGACA ACGCCAAGGA CAAACTACT AAGCAGGCTA	240
ACAAATATGA ATCCTTCACG CAAAAAAGGA GTGTGCTTGG TTCGGAAATA ATCTCCAAAA	300
GCCAGCATGG TCCGTTTGAT ATTCCCTGTC ATAAAAGCGT TATTATAGGC AATACCCGAC	360
ACTTCTCCAA AAGCAGTTGT CACCAGTCCC ATACAGAAGG CCAAGGGCGG CACTAGATAG	420
ATATTATCCA CAGTTTGCGG CACAAAAGCA ATAATGATTG ATAAGATTGC CAAGGGAATC	480
AAGGACAGAA TAGGTTTTTT CACAATTCTC AATTTTTCCT TATAAATCGT TAATAAAAAG	540
ACTCCCATCA TAAACGCTAG CAAGGTGAGA ACCTTGTCCT TAACATCCGA AACATTATTT	600
TTAATTAATT CTACTGAAAG AAAGACAACA TTTCCAGTTT GTCCAGCTAC AAGGGTATTC	660
CCGCGAACAA TAAAAGTGTA AGCATCCACA TATCCAGCAC AAAACGTCAA AAAAAGTGCT	720
AACCTTTTAG ACTGACGTGA TATTTTCTTT ATAGGTAATA ACCTCATTTT ACCTCCCAT	780
GTATTTTCTC TTAGAAATAT TGTACCATT TCTTTCTAAA AAATCGTAGG CTACCATTTA	840
GATTTTACTA TTAGCATAAA AATAATAATA GACAACTATT TATCCAAAA TAGATAGATG	900
TAACATGTTT GCAAACAAAG CATAACGAAC TTTAGTAAAA TCATTTCCAT GAAACTAGAA	960
TAGAGCCCTC TTAGCAAAAA TCATTATTTT AATTATTTTC TAATCACTCC TTGACATAAA	1020
TAACCTCAC CAATAAAGA CTATGTCTTA AAAAAATGGT ATAATAAAT CAATACTTGG	1080
GCTTGATGGC TATGCTACTA ATAACAATTA GGAGAGAAAA TCAGGCACTT GTTAACAACA	1140
AGGATTATCC CCTTGAGATG AAAGGAACCT TAGAAATCTT ATGATGAACA TGCAAAACAT	1200
GATGCGTCAA GCACAAAAC TTCAAAAACA AATGGAACAA AGCCAAGCTG AACTTGCTGC	1260
TATGCAATTT GTTGGCAAAT CTGCTCAAGA TCTTGTCCTA GCGACCTTAA CTGGCGATAA	1320
GAAAGTTGTC AGCATTGATT TCAATCCAGC TGTCGTTGAC CCAGAGGACC TTGAGACTCT	1380
TTCTGATATG ACCGTTCAAG CCATCAACTC TGCTCTTGAA CAAATCGATG AACTACCAA	1440
GAAAAAATG GGTGCTTTCG CTGGGAAATT ACCTTTCTAA AAACAAGGAG CTAGAACAAT	1500
GCTTGTCGAT AACAAAGGCT AAGAAAGGTG CAAAAATGAC TCTATAATAT TTGTAGTGGG	1560
TAAATCCCTT ATGGATATTA TGGAGCCTAT TTTTGTGTAG AAAAAAGTCC CATATGACCT	1620
ATAATGAAAA GCGACAAAAC AACTCATTAG AAAGAATCAT ATGGAACAAT TACATTTTAT	1680
CACAAAATTA CTAGACATTA AAGACCCTAA TATCCAGATT TTAGACATCG TCAATAAGGA	1740

1270

TACACACAAG GwaATCATCG CCAAAGTGGr CTATGAAGCT CCATCTTGTC CTGAGTGCGG 1800
AAGTC 1805

(2) INFORMATION FOR SEQ ID NO: 248:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2516 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 248:

CTGCATCTAG TTTGTTTCTC CCTACAGTTT TAGCTAGACA GATTGGAGAT TATGATTTAA	60
CGTCGCCCGC TTGGGGTTCG GATACAACTA GTGAGCTTGA GAAAGAAAC TCCTCTGCTG	120
GAATTAATAA TAATGACAGC ACTGGTGGCG GTAAAAGGTT AAATACCTCT ATTCGTAGCG	180
CCTATAGTGG GTCAGATATT ACCCCGGTAT ATTCATTGGG GTCTGGCTCT AGGATTGTCA	240
TGTACTATAA TGGAGGTGGT GACAATTATA TTGGTTCTGG TACTAGATTA GCTATGGCGC	300
CACAATTTGG AAATCATGTA AGAATTCATA CTTCAGGTTT TTGGAATCCA GATTCTTATT	360
AACTTACTTG TCAGAGTAAG CCTTAAAGAT GGTGATTGT GGGTGTAGCA TGAAAAAGA	420
ATGCTACACC CTATTTTAT TATAAGGAGG AGTAAGGATG GAATTTTCA TTTGTAATCT	480
TGTACGAGTC GTTCAATCAC CTCGATTTTA TATGTCTTTA TTTTGGACCC TTCTTGCAT	540
GAGTTTAGGA AATTCCTTG CTTTCAATGG TATTTATAAA ATTGAAGGTT TATCGATTTT	600
TTTGGCCGCT TCTTCTATTC GAGGATTTTC ACCGATTAGC CTAGTAGCTG CACTTATCTG	660
TACACTGCCC TATTCTAGTC AGATAATAGA GGATGCTGAG AGTCATTTTC TAACAGCACA	720
ATTGTGTCGA ATTTCTAAAA AGAAGTATCT GGCTATTGTG GGTAGTACTG TAATTATTTC	780
TTCTTTTCTA GTCTTTTTC TCCCCTATTT ATTATTATTA GGAATTAATC TTTTAGTGAC	840
TCCTTATCAG GAAATTTATA TTGGAGATTA TAGTGGTGCC TTAAGAAGAT TATTGATTC	900
CAATCAGTTT CTCTATAGTC TTGTAACGAC TCTCTGGTAT GGAGTTTGGG GCGCTGTGTT	960
CTCTATTTT GGACTAGCTA GTGCTTTGCT AGTGAAGAAA AAAATAGGAG CTATTTTCAT	1020
CCCAGTTGCC TATATGATGG TTGGTGGTAT TTTTGGGCT ATTTTAGGGC TATCTTACTT	1080
AGAACCTGTG ACAACGCTAG CTTTGGGATA TCAGAAAGAT ATCAGTCTTT CCTTAGTTAG	1140
TGCTCATCTT GCTTTTATTT TATTGTGTAG TTGTTGGTT GTTTATGGTA CATTTTCTCT	1200
ACATTCAGAG GACTATGTAT AATGAAACAA TTTGTTCAAT TTTATAAAAA AGATTCTTA	1260
GCAGTATTGG TTTATTTTAT ATTACTGCTA TCCTGTGTTT TATCTAGTAC AGTATATTTA	1320

1271

TTGCGCtGTC GCCAATATTC AATCCATCCA AATGTATTAG AATGGATCTT AGTTTACTTT	1380
CAAGATATGA CGACTGGAGT ATATTGCTTT CCGTTCACAT ATATATTGTT CTTTTTTTAT	1440
TTGATGAATA ACTATTTTAA TAGGTTGGAG TGTGCGATTC GTCTGAAATC AATTAAGCAC	1500
TTTACCAGTT TTAGTTTCAA ATTAGCAGCT CTTAGTACGG GGATTGAGAC GGCGACTTTA	1560
TTTTTATTGA TTTTCTAAT TGCATTTAGT AATGGTTTTA GCTTCTCTTT GGAGATAAAG	1620
GAGGTTGATT TTTTAAGAGA ATTTTATGGT ATAAGTATTG CAAACAATGC TAGTTTCTTT	1680
ATAGGATTTT TTTTCTCTTA TATAGCATAC TATTTCTTTT TATCCTTACT TACTATTAGC	1740
AGTTTCTCTT GGTAAATAA ATCAAACATG AGCTTAGTAT TTCTGTTTAC TTTTTTATTT	1800
GTAGAATCCT TATTCTGGAT TTATCAGTTG GACAATGGGA TAATTGGATT ATTGCCAATT	1860
TTTCAGTATA TGGTAAATTC CAATCCGTAT GCATTGATTT ATTGGCTTAC ATTACTATCT	1920
ATCATAATTC CATTGACTGT ATTTCTGTG CATAGAAACT GGAGGAGAGT GTAAAAGTGT	1980
GAAATGGGAA AGTTAAGTAG TCACATGTGG AGGTTGAATC AGATAATCTA TACCAAGTAC	2040
TTTGGGGTT ATGTTCTTTT TTGGATATTG ATTTGTTTAG GATTATGGTA TTGGTTAGAA	2100
GGAAATGATA GACTTGTAT AGAAATTTTA AAAGGGCCTA ATCTGAGTCA AAATCTTTT	2160
TTAGTCTTAT CTATATGGTT GCTTCATTGG TTTATTATTC ATACATTTT TCTAGCAGTT	2220
GTATATCGTA GAAGAGCATC CGATTCTTT ATGGAAGTGA TTGATTTTC TTCTATTAC	2280
CTCTGGATTA GGTATCAGAT TTGGACCTGT TTTCTTTATG GACTCATTTT AATCATGGTA	2340
AAAGTTCTAG TGATTCAATT TATGTTACAG TTACCAAAT GGGATATAGG AGTTTGTTT	2400
ATAGTTGATT CTTTGAATGC TTGTGTGTTA GTCTTGTTT GCTTTATGTT ATACGCACTA	2460
GGAGCGAATG TACAAATGAA CTTTGCTTGC GTTAGTTTCT TTTTACTCAT GATTGG	2516

(2) INFORMATION FOR SEQ ID NO: 249:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1364 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 249:

CGGTGTTTT TTGTAAATTT TCTAGCACTT GTATGGTAAA ATAGATACAG GTGTTCATTA	60
AACTAGACTA AAAACCTATT TAAGCAGGCA AAATGAAGAA ATACCAACAA TTATTTAAGC	120
AAATCCAAGA AACCATTCOA AACGAGACTT ACGCTGTCGG AGATTTCCTT CCTAGCGAGC	180

1272

ACGACCTTAT GGAGCAATAT CAAGTGAGTC GTGATACCGT CCGAAAGcCC TGTCTCTCCT	240
CCAAGAGGAA GGATTGATCA AAAAGATAAG AGGGCAAGGT TCTCAAGTCG TCAAAGAAGA	300
AACCGTCAAT TTCCCTGTAT CCAACCTAAC CAGCTACCAA GAAGTAGTTA AAGAACTTGG	360
ACTGCGCTCT AAAACCAACG TGGTCAGTCT GGACAAGATT ATTATTGATA AAAAACTCCT	420
ACTGATAACC GGTTCCTCAG AGTTTCGGAT GGTTCGGAAG GTGGTCCGCC AGCGTGTGGT	480
GGATGATCTG GTATCCGTTC TGGATACGGA CTATCTGGAT ATGGAAGTCA TCCCAAATCT	540
CACTCGCCAA ATTGCTGAGC AGTCTATCTA TTCTTATATA GAAAATGGCC TCAAACCTCCT	600
TATTGATTAT GCTCAGAAGG AAATCACCAT TGACCACTCA AGCGACCGAG ACAAGATTCT	660
CATGGACATT GGCAAAGACC CTTATGTCGT TTCGATTAAA TCAAAAGTCT ATCTCCAAGA	720
CGGACGCCAA TTTCAGTTTA CCGAAAGTCG CCATAAGTTA GAGAAATTTA GATTGTAGTA	780
TTTTGCAAAA CGCAAGAAAT AAAAGACTGA GACACCAGAT CTCAGCCTTT TTCGGCTCTA	840
TAATATTTGT AGTGGGTAAC CCCCCTATGG ATATTATGGA GCCTATTTTG TGTAGAAAAA	900
AAGTCCCATA TGACCTATAA TGAAAAGCGA CAAAACAACT CATTAGAAAG ATTCATATGG	960
AACAATTACA TTTTATCACA AAAGTGCTCG ATATTAAAGA CCCAAACATC AAGATTCTAG	1020
ACATCATCAA TATGGATACC CACAAAGAAA TTATCGCTAA GCTGGATTAT GAGGCTCCAT	1080
CTTGCCCTGA TTGTGGAAGT CTAATGAAGA AATATGACTT TCAAAAACCG TCTAAGATCC	1140
CTTACCTCGA AACAACTGGT ATGCCTACTA GAATTCTCCT TAGAAAGCGT CGTTTCAAGT	1200
GCTATCATTG TTCTAAAATG ATGGTCGCTG AAAGTTCTAT CGTCAAGAAG AATCATCAAA	1260
TTCTCTGAT TATCAACCAA AAAATTGCGC AAAAGTTGAT TGAGAAGATT TCTATGACCG	1320
ATATTGCTCA TCAGCTGGCC ATTTCAACTT CAAGTGCAT TCGG	1364

(2) INFORMATION FOR SEQ ID NO: 250:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1227 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 250:

CCATGAAGAC CGCTTGGAAT TGGAAATGGCA CAAGCTTTG TTGAATGGTC TATTTCCATT	60
GACAATCGGT GGAGGAATTG GACAATCTCG TATGGCCATG TTCCTACTTC GCAAGAGACA	120
CATCGGAGAA GTGCAACAA GTGTTTGGCC TCAAGAAGTC CGCGATACTT ACGAAAATAT	180
TTTGTAGAGA ATCGAACCGC AAGGTTGGT TTTCTTTCTC TTTTGTCTA TAATTGGTA	240

1273

TAATAAACAG TATGAAAATC GTATCAGGAA TCTATGGGGG ACGTCCCCTC AAGACACTAG	300
AAGGCAAGAC GACAAGACCT ACTTCGGATA AGGTTAGGGG AGCCATTTTT AACATGATTG	360
GTCCCTACTT TGAAGTGGGA CGAGTCTTGG ACCTTTATGC AGGTAGTGGT GGTTTATCTA	420
TCGAAGCAGT ATCGCGTGGC ATGTCCAGTG CTGTTTGGT GGAGCGAGAC CGTAAGcTCA	480
GACCATCGTG GCTGAAAATA TCCAGATGAC CAAGGAAGTT GGAAAATTTC AACTCCTCAA	540
GATGGATGCA GAAAGGGCAT TGGAACAGGT ATCTGGGGAA TTTGACCTCG TTTTCTTAGA	600
CCCTCCCTAT GCCAAGGAAC AAATCGTAGC AGATATTGAA AAAATGGCTG AGAGAGAGCT	660
TTTTTCTGAA GATGTTATGG TTGTGTGCGA GACGGATAAA GCCGTTGAAC TTCCAGAAGA	720
AATTGCCTGT CTGGGTATCT GGAAGGAAAA GATTATGGA ATTAGTAAGG TGACAGTCTA	780
TGTCAGATAA GATTGGCTTA TTCACAGGCT CATTTGATCC GATGACAAAT GGGCATCTGG	840
ATATCATTGA ACGGGCGAGC AGACTTTTTG ATAAGCTTTA TGTGGGTATT TTTTTAATC	900
CCCACAAACA AGGATTCTC CCTCTGAAA ATCGTAAACG GGGGTAGAA AAGGCTGTGA	960
AACATTGGG AAATGTTAAA GTCGTGTCTT CTCATGATAA ATTGGTGGTC GATGTCGCAA	1020
AAAGACTGGG GGCTACTTGC CTAGTGCAG GTTTGAGAAA TGCGTCGGAT TTGCAATATG	1080
AAGCCAGTTT TGATTACTAC AATCATCAGC TGTCTTCTGA TATAGAGACT ATTTATTTAC	1140
ATAGTCGACC TGAACATCTC TATATCAGTT CATCAGGCGT TAGAGAGCTT TTGAAGTTTG	1200
GTCAGGATAT TGCCTGCTAT GTTCCCG	1227

(2) INFORMATION FOR SEQ ID NO: 251:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3652 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 251:

CCGGTCAAGT TAAAAACGCT ATTTCTTCCC ATTTTATTTA TTTTITAGGA GTGGTAACGT	60
ATCAAAATAG CCAAGCGTT CTCACCCGTG TGAGTTTGAA TAATGGAACC CGTTTCCAAA	120
ACAGAAATTG GCTTTTCAAC ATAAGCTTGT AAGCTTTCTT TCATCTCTTT TGCCCAATCA	180
TCACTACCAG AATATGAAAT TCCAATCTCT GTCACAGCAC GTTCAGAAAG CGATGTTATC	240
AACTCATCTA ACCATTTTTT AAATGTTTTA GTTCCACGAC CTTTAACCAT TGGCTGCAAT	300
TCATGGTCTT TCATTTGCAT GACAGCACGG ATATTGAGAA GAGAGCTCAA CAAGCCAGTT	360

1274

ACACGGCTAA TTCGTCCACC TTTGACAAGA TTTTCCAAAG TTGAAACACC AATATAAAGC	420
TCTGTATGGT TTTTAACCTC TTCTACATGA GATAAAATTG CCTCCATATC TTTACCTTCT	480
TGAGCTAACT TCGCAGCCTC AACAACTTGG AATTTTCAGGG CTTGGTCAGT GAAGGAACTA	540
TCAACAACAG TCACATCTGC AGTAGATAGG CTAGCACCTT GCGGTGCTGC TTCTACCGTA	600
CCCGAAAGAG CATGGGACAT ATGAATAGCA AGAATCTGGC CACCATCTTT GCATAGGTCT	660
TCAAAAATCT CAGCAAAGAC ACCTACAGGT GGCTGACTTG TTTTCGGAAG ATTCTTACTT	720
TCTTGCATCA ACTGAAGAAA TTTACCTTCT TCTTTCAAAT CCGCATCAGA ATAAACAACA	780
TTATCAATCA TTACAGATAA TGGAACAATT GTAATATCTA ATTGCTTTAC TAGTTCAGGT	840
TCAATAGTAA CAGATGAATC GGTTACAATC TTAATTTTTG TCATAGTATC AATCTTTCTA	900
TTTTAGGATT CAGATTGGTT TCCTTACTTC TAATTATATC AAAAAAAGA TTA AAAATCC	960
TAATGGAGTC AATCAAATTT TCCGTA AAAT TTGATATAAT CAACTTATAA GAAAAGAGGT	1020
GTCCTATGAT TAAAAAAATT TACCCCATTT TTACCATTTT ACTAGGTGCT GCTATTTATG	1080
CTTTTGACT GACTTATTTT GTAGTTCCCC ATCATCTCTT TGAAGGAGGG GCGACAGGCA	1140
TTACCCTCAT CACCTTTTAT CTTTTTAAAA TCCCTGTTTC CCTCATGAAC CTGCTGATTA	1200
ATATTTCCCT TTTTCATCCTA GCTTGAAGA TTTTGGAGC CAAATCCCTC TATTCTAGTT	1260
TACTAGGAAC CTTAGCTTTG TCCGGCTGGT TAGCTTTTTT TGAGCATATT CCCCTTCATA	1320
TTGATCTTCA AGGTGATTTA CTAATCACAG CCCTTATAGC GGGAAATCCTA TTGGGAATTG	1380
GCCTTGGAAT TATTTTAAAT GCTGGAGGTA CAACTGGCGG AACTGATATT CTAGCTCGTA	1440
TTCTCAACAA ATACACTCAT ATATCCATAG GAAAACGCT CTTTATCTTA GATTTTGTGA	1500
TTCTCATGTT GATTCTCCTA ATCTTCAAGG ATTTGAGATT GGTTCCTAC ACGCTTTTGT	1560
TTGATTTTAT TGTTTCTCGT GTTATTGATT TGATTGGTGA AGGAGGATAT GCCGGCAAAG	1620
GCTTTATGAT TATCACAAAA CGTCCTGACC AACTTGCTAA GCGGATTAAT GATGACCTCG	1680
GAAGAGGTGT TACTTTTATT TCTGGTCAAG GCTACTATAG TAAAGAAAAT TTGAAAATCA	1740
TCTACTGTAT TGTCGGAAGA AATGAAATTG TGAAAACGAA GGAAATGATT CATCGAATCG	1800
ATCCTCAAGC CTTTATAACT ATTACAGAAG CCCATGAAAT CCTAGGAGAA GGCTTCACCT	1860
TTGAAAAAGA ATAAAAAGAG GTAATGTCGT GACCTCAAAA GTTAGACTAA ATCATCTATC	1920
TTTTGGGTTA CAGACAACCT CTTTTTTATT TTATTTACTC AAGCTCTTAA GACCAATTCC	1980
GAGTTACTTC TTCATCAGCC TTAACTGAT CCACTAATTG GTCAACTGAG TCAAATTTGG	2040
TCATATCTCG AATGCGATCA AGCCAATAA CCATGACGGT TTCCCCATAA ATATCTTGAT	2100
TAAAATCAAA AATATTGACT TCAAAACGTG CTTCTTCTCC ATCAAAGGTC ACATTTTCTC	2160

1275

CGACACTAGC CATAGCACGA TACTTCTGTC TTTGAATCTC AACATCAACA ACATAAACGC	2220
CATCTGCTGG CATATAAGTA CGGTCTAAAA GCACTAAATT CGCTGTCGGA TAACCAATTG	2280
TACGACCACG AGCATTACCA TGAACCACCA TACCTCTTGA TGGAAAGCGT GCCCCCCAAA	2340
GTTTTCTGTC TTCTTTCACA TTCCATCTA AAATAGCTTG ACGGATACGA GTTGAACATA	2400
TCTTTCCTTT CTCATCTTCT ACAGGTGGAA CAATGATAAC TTCTCCATCA AAGTAATTCT	2460
TTAAATCTTC TGCTGTTTTT TTGTCAGAAC CAAATGTATA ATCAAAACCT GCAACAATAA	2520
TTTTGGCATT CATAGCCTTG ATATAAGTTG CAAAGAATTC TTGTGCAGTG AGACTAGCGA	2580
ATTGACTACT AAAATCAAGG AGATATAATT CTTCTACACC TTCGCGCTTT AATTTTCTTT	2640
CACGTTGAGC AGGGTTCAAA ATATGCAAAA ACAATCTGG ATGATAAGGC TCTAAAGCGA	2700
TCTTTGGAGA TTCATTAAAG GTCATAACGA CGATAGGCAA CAAATCCTTT CTCGCAGCCT	2760
TGTTGGCAAC ACGAAATAAT TCTTGATGCC CCTTATGTAT GCCATCAAAA TAGCCGAGAA	2820
CAACGACTGA ATCAGATGGT GTGCCAATAT CTTTTTGTTT TTTTATAGGA ATAGTAATAA	2880
TCATAAATA ATTATATCAT AGCGATAGCT ATTTCTGGAA CAGAAAATCT GAAATGTTGT	2940
TTTTTTCACA TGAAGTGAC CTGTTTTCAA AAAGCACTTT ATTCTATCGT TGCTTAACTA	3000
TGAACTTTGC AATATTCTTC TCAAAAACCT GTAGGACATC TTCAAAATTT TGCAAGGAGT	3060
GATTAGACTT GTTCGGTAAC CATAAAGTGT CATACTATGC TTATGTATGA AAAAGCAATC	3120
CAACTAACTC CTGAGAACTT TAAATTACTA ATTGGTGCCG AAAAGGTAGA ATTTAGAATC	3180
GAGGTACACC TATGGCTGTA AAATTTACAA AATGAGACAA CTTGGGCAAG ATGTTTGAAG	3240
AATTTCTTAA ACTCCCTGAT TTGAAGCAAG TCACCTTCCC TAATGACAAA GAAAAAGCC	3300
AAAACAGCAA AGAAAACTA GATGACTGCT TTCCAACAAC TCCCATCTAG TGTGCTTCAG	3360
ACTGGGCTAT TTTTCTCTCC ATCTGTTAGC TTGGATTCTC AGACCGTTTC AGCTAAAGAA	3420
TATCTTTTCC CTTATCAGAA GGAACGGCTC AAGCCATTCA GACAAGTGAA GGGACGACAA	3480
GCCAATATTT GAAACCAGAT AGCAGTTCTT ATAGTCAATT GAAATAAAAT CTGAAGAAAT	3540
CGAGTAGGAA ACTCATATCA ATGTTTAAAC GTGTTCTATT CCAGATTTCAT ACTCAATGAW	3600
AATTAAAGTG CAAACTAGGA AGTTAGCCGC AGGTGATACT TTGGGTACGG CA	3652

(2) INFORMATION FOR SEQ ID NO: 252:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 743 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1276

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 252:

GTACCGTGGT GCCAAAGTAC AGCAAGGTTG GCTTTTGGAC AAACAATACC AATCTTGGTT	60
TTACATCAAA GAAATGGAA ACTATGCTGA TAAAGAATGG ATTTTCGAGA ATGGTCACTA	120
TTATTATCTA AAATCCGGTG GCTACATGGC AGCCAATGAA TGGATTGGG ATAAGGAATC	180
TTGGTTTAT CTCAAATTG ATGGGAAAAT GGCTGAAAA GAATGGGTCT ACGATTCTCA	240
TAGTCAAGCT TGCTACTACT TCAAATCCGG TGTTTACATG ACAGCCAATG AATGGATTG	300
GGATAAGGAA TCTTGGTTT ATCTCAAATC TGATGGGAAA ATAGCTGAAA AAGAATGGGT	360
CTACGATTCT CATAGTCAAG CTTGGTACTA CTTCAAATCC GGTGGTTACA TGACAGCCAA	420
TGAATGGATT TGGGATAAGG AATCTTGGTT TTACCTCAA TCTGATGGGA AAATAGCTGA	480
AAAAGAATGG GTCTACGATT CTCATAGTCA AGCTTGGTAC TACTTCAAAT CTGGTGGCTA	540
CATGGCGAAA AATGAGACAG TAGATGGTTA TCAGCTTGA AGCGATGGTA AATGGCTTGG	600
AGGAAAAACT ACAAATGAAA ATGCTGCTTA CTATCAAGTA GTGCCTGTTA CAGCCAATGT	660
TTATGATTCA GATGGTGAAG AGCTTTCCTA TATATCGCAA AGTAGTGTG TATGGCTAGA	720
TAAGGATAGA AAAAGTGATG ACA	743

(2) INFORMATION FOR SEQ ID NO: 253:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4010 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 253:

TTTGTGGTTGA TGATACGAGG GATTTGGTGA TTCTTCTTGA CGATAGAAAT TTCAGCGACC	60
ATCATTTTTG AACAGTGATA GCACTTGAAT CGACGCTTTC TAAGGAGAAT TCTAGTAGGC	120
ATACCAGTCG TTTCAAGATA AGGAATTTTA GAAGGTTTTT GAAAGTCATA TTTCTTCAAT	180
TGGTTTCCGC ACTCAGGGCA AGATGGGGCG TCGTAGTCCA GTTGGCGAT GATTTCCCTG	240
TGTGTATCCT TATTGATGAT GTCTAAAATC TGGATATTAG GGTCTTTAAT GTCTAGTAAT	300
TTTGTGATAA AATGTAATTG TTCCATATGA TTCTTCTTAA TGAGTTGTTT TGTCGCTTTT	360
CATTATAGGT CATATGGGAC TTTTTTCTA CAATAAAATA GGCTCCATAA TATCTATAGT	420
GGATTTACCC ACTACAAATA TTATAGAACC GAATTAATTT AATTAGAGAG CCAACTTCTT	480
AATATAGTAA TCGCGTCATA ACAAGGTATC TATCATTCAT GGAGTTCCTC CTGTATACTA	540

1277

TTAGTAAAGT AAAACTATTG GAGGATATTT TAATGCCACA ACCTATTGTT CCTGTAGAGA	600
TTCCACAATC TCGTCGTTTT GATTCTAAAA AGAGAAATGA TATTCTGCCT AAAATTCGTA	660
TTGGCAAGCT TGAAGTAAGT TTTTTTCAAT CTCTCAATCT CGAAATGGTA GAACAGCTTT	720
TGGATAAAGT GTTGCTCTAT GACAATTCAT CTATCTAGCC TAGGGCAGGT CTATCTCGTA	780
TGTGGGAAA CGGATATGAG GCAAGGCATT GATTCATTGG CTTATCTGGT TAAAACCCAC	840
TTTGAATTAG ATCCTTTCTC CGGTCAAGTT TTTCTCTTTT GTGGTGGACG TAAAGACCGC	900
TTTAAAGCCC TTTACTGGGA TGGTCAAGGA TTTTGGCTAC TATATAAACG CTTTGAGAAC	960
GGAAACTGA CTGGCCAG TACAGAAAAG GATGTCAAAG CTCTCACACC TGAACAAGTA	1020
GATTGGCTTA TGAAGGGCTT TTCTATCACT CCAAAAATAA ATTTATCAGA AAGTCGTGAT	1080
TTCTATTGAA ATGAGGACTT TCTTTTAGT TATAATAAAG TTAGGAAATA AGGAGAGGAA	1140
GCCCATGGAA GAAGATTGAA AATCATTCOA CAACAGAGTG CTACAATTGA TAGTCTCACC	1200
AATGAAGTTG CCCTTCTTCG TGAACAAGTG GCTTATCTAA CGCAAAAGCT CTATGGAAAA	1260
TCCTCTGAGA AAAGTGTGTTG CCCATCTGGA CAACTCAGTC TTTTGAAGA GGAACAAAAT	1320
ATGGAAGAAG ACTCTGACTT ACCCAGTTGA AAGAGAAGAA ATCACCTATA AACGTAAGAA	1380
AGCTAAAGGG AAACGTCAAG CTCTTCTTGC CCAATTTGAT TCAGAAGAAG TTCATCATCA	1440
AGTAGAAGAG AGCATTGACC CTGATTGTCA GGGAGATCTA AAACACATTC GAGCAACCCCT	1500
TCAACGACAA GAATTAGTCT TTATTCCTGC GCAATTAAAA CGAATAGATC ATATCCAACA	1560
CGCTTATAAG TGCCAAGCAT GCAGTGATAA AAATCCGACT GATAAAATCG TGAAGCTCC	1620
TATTCCTAAA GCCCCTTTGG CGCATAGCCT TGGCTCAGCT TCTATTATCG CTCACACCAT	1680
CCATCAGAAG TTAAATCTGA AGGTACCCAA TTATCGCCAA GAAGAAGATT GGGCTAAGAT	1740
GGGTTTACCA ATCACACGTA AGGAAATTGC TAATTGGCAT ATCAAGGCCA GTCAATACTA	1800
TTTGGAGCCC CTTTATAATC TTTTACGAGA AAAGTTGTTA GAACAAGCTC TTCTTCATGC	1860
GGATGAAACC TCTTATCGGG TTCTAGAGAG TGATAGTCAG TTGCCTTACT ATTGGACTTT	1920
TTTGTCTGGG AAAGCTGAGA ATCAAGCAAT CACGCTGTAC CACCATGATC AGCGTCGGAG	1980
TGGTTTAGTA GTACAAGAAT TCCTAGGAGA TTATTCTGGC TATGTTCAAT GTGACATGTT	2040
GCGGCAGTAA CTTAGGACTT TAGTCCTCTA GTTCTGCCTA TGCGATAGCA GTCCAAGGTT	2100
TAGGAGTAAG GCGACGCTAA GCTTGGTAAA CTGCGAACAG CTAGAAGCTT ATCGTCAACT	2160
GGAAGAAGCT GCACTTGTG GATGTTGGGC GCATGTGAGA AGGAAGTTT TTGAAGTGCC	2220
CCCCAAGCAA GCAGATAAAT CATCCTTAGG AGCTAAAGGT TTAGCTTATT GTGATCAGTT	2280

1278

ATTTTCCTTG GAAAGAGACT GGGAGGCTTT GCCAGCTGAT GAACGACTAC AGAAACGTCA	2340
AGAACATCTC CAGCCCCTAA TGGAAGACTT CTTTGCTTGG TGCCGCCGTC AGTCAGTTTT	2400
AGCAGGTTCA AAAC TAGGAA GGGCAATTGA ATACAGCCTC AAGTATGAAG AAACCTTTAA	2460
GACTATTTTG AAAGACGGAC ATCTGGTCCT TTCCAATAAT CTAGCTGAAC GCGCCATTAA	2520
ATCATTGGTT ATGGGACGGA GTAAAAGAGT CCAGTGGACT CTTT TAGCCT GAGCTCAGTT	2580
TAAAAAAGCG AGGGTGGTTA TTTTCTCAA GTTTTGAAGG AGCTAAAGCA AGAGCTATTG	2640
TTATGAGCTT GTTGAAACA GCTAAACGTC ATCAATTATA GTGCGTTGAA TCTATAACAG	2700
TACGCATCGA CTGCTAAAC ATTTCTATAA ATCAATTTTC CTTTCCTAAT CGATTGTGTC	2760
ATATCTTATT TCAATCCATT ATAAATAGCG AGAAATATCT ATCCTATCTT CTAGAATGTC	2820
TTCCAAACGA GGAACTCTC GTAAACAAAG AGGTTTTAGA GGCCTATTTA CCGTGGACTA	2880
AAGTTGTACA AGAAAAGTGC AAATAAGAAA TCTCCAGATT AGGAACTATC CGTGAGTTCT	2940
CTAGTCTGGA GATTTTTCAA TAGACTTCGT TATTGGACGG TTACAATTTA TTATATGAAA	3000
ATCCCATATT ATTCTCCAAT TCTATATTTT ACCTTTCTAA ATGTATAGAT TAACTACCTA	3060
ATTATAGCAT ATAACGCAGA TTCCTTTCAA TCGTATGATT TACTGCATTA AATTAAGTAA	3120
AAAAATAAAG GCAGTCCGAA GACTGCCGAT ATTTATCTCT CATCTCTTTA ATTATGGTAA	3180
GTAAATAAAT AATTTCCCTA AAGATATGGA AATTATTAAT ACTATAAATA CATATTATAA	3240
AGTTTATAAA TACTGTAAAA ATCCTGAAGT TAATTTTCTA ATAAATATCA ATATGTGTTA	3300
GTATCTTTTA AATTTT TAGA CAATTTACTA GTTCTATAGA CATGTTTAAC AGACTCTATT	3360
TTACAATTCA AAAATTTTCA CTGCCACTTC ATTTAAAAAT TCTATATCAT GGGAAACAAT	3420
AAAAATTATT TTATCCATGG TTTTATACTT ATTAATCAGT TCAGATATTT TTATCATATT	3480
GGAATAATCC ATACCACTTG AAGGTTCTGTC AAAAAAGACA AATGGAGAAT TCTTGCACAT	3540
AACAGATGCT ATTGCAAGCC TTTGCTTTTG CCCTCCTGAT AAAC TCATCG GATGCCTTTC	3600
AATAAATTCG TCCAGGCATA AATCTTTTAA CCCAAATCAT TCATACCTCT CTCAACTAGA	3660
TGTAACCTAC AAAACCCCTG ACCTCATGAG CCACTTTCTT CCTCCTCATG AGGTCAGTTT	3720
TACTTTCTGC TGTTCAGTA TCGTTTTTCC TCGCTAGATT TCCTCAAAAG GGCAGACTCC	3780
TCCCTTGGTT CGTCACACGA TTTTTTCATC TCGACTGTTT TTTAATGCAT CATTAAACGAC	3840
GCTTTTCTTC TAGGTGGTTC ATAAGGAACA GGAAGATTCA GGTTGACTTT TCTAATCCTA	3900
GAATAAAGTG CTGAAAACAA TTCGGAATAG GCATAGAGAC TAGACAATTT GAGGAGCTGC	3960
TTGCGTCCTG TTCGAACACA TTTTCCCACC ACGTGAAGAA AAAGATGGCG	4010

(2) INFORMATION FOR SEQ ID NO: 254:

1279

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2789 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 254:

ATGCATCCGT TTGTCAAGCC TAAATTGTAA TTTTTCCTCA TTTAAAACAG AAAAACCAG	60
GAAAATGACA TAAAAATATC ATTCTAGGC CTATTATGC TATTCTCTC TGAAAAATAT	120
GAGTATTCAG TCGGTCAAAT GAAGCTGAAC GAACTCATTT TCCCTCGCCT AATTCAATGA	180
TTGATGACA TTGTTGGGCT ACATAAGCAT CGTGGGTAC GATAATGACT GTTTCCCTC	240
CTCGATTCAT CTCTAAGAGA AACTTCAAGA CCAAATCTCT ATTTTCAGGA TCCAGAGAAC	300
CTGTCGGTTC ATCGGCTAAA ATCAGCTGGC TGGGTTCCTA GATGGCTCTA GCAACTGCAA	360
TTGCTGTGTT TCGCCCCCA GACAACTCGG AGACCTTTG ATGCAAAGTA GCTGATAAAC	420
CTACTCTCTC TAAATCTCT TCCACCTTTT TGAGCTTGTG TTTCTTAGGC AATTTCACAT	480
ATTTACGCGC CACATGAGAT TGTACTCGAC CGTTTCATCA TCAATCAGGG CAAAATTTG	540
AAACAGATAA GAGATATGTT CACGGATTAT TGTTTGGCAG TTAGCAGAA TAACCGCTAG	600
ATTTGCTCTA CCAAAAATCT CATACCGTCC GCTATAATCA CCATCTATCA AACCCAATAA	660
ATTTAACAAG GTCGACTTCC CACTACCACT CTTACCAACA ATAGCTACCA AATCCCCCTG	720
ATCAATCCTG AGAGATAAGT TATCCAAAAT CACTTTTCCC CCAATGGTTT TGGTAATATT	780
TTTCAACTCA ATCATAAGAT GCCCCCTTTC AATAACTCTA CTAGACTTCT TTTCTCCATC	840
CTAGAAGCTA AGCCTAGCAC AAATAGTATA TCCAGACATG TAAAACCTGC AAACAGTAGA	900
AGTGGTAAGA ACGCATGGGC AAAGAAAATC AAGACTAGAA GAGGGAAACT ATAGCCCAGC	960
AAGAGCAGAA CGAGGAGAGG ACGGTAGCGA TCGACCACTT TCCACCCCAT AAACCTCTTG	1020
GTAATGATAT CCCTGCGCTT CAATAAGAAA GTTGTTACTA GTAAGAAGTA GGAAATCATC	1080
ATGCTAAGGA GACCAACAA AGCAAAGAGT AGGTAAAAT TCCGAACAGC ATCTCGATAA	1140
GAATCCACTT TCTCTTGTG AATGGCTTGA ATAGATGAAA ATTTTAAATA ATTTCCATCT	1200
GACAAATTTCT CAACTAATC TGTAATCTCT TTTTGATGTT GAACCGTATT TTCAATTTTA	1260
ATCGGATTAT TTAAGCCAGT TGTGACAGG GAGGCTTTCT CATCCACAT CATATCAGAA	1320
TCATTGACCA AGCTAATAAT TGGATTGGAG AGATTTTCCT TTCGCTTATC ACTATATGGG	1380
AAAAATGACC AATCTCCTTC ATAATAGGCA ATCTCGACAT CCATCTCCTC TATCGTTCGT	1440

1280

TTTGCTGCT CTTCATACTT CATCGAATGA AAGGCAATTA ACTTCCCCAA GAGCTGATTT	1500
TTATCTTCTT CACCTTTCGT ACTTGCTGGC ATCAAAATAA CTTTTTTAAT ACCGGTATTT	1560
GGTAGCTTGA ATCCCTTGCT CTTTAGAAAA TTGCGATTGG CATAGTAAAC ATCCACCGTA	1620
TCTGTAACT GATATTGCTG AATCTGTTCT GATTGGACAA AATTTTTTAC AGGAAGACTG	1680
CTACTCTGCA CATAGCCCGC CTGCGTTTTT TCTACCAAAT CCTGATAAAA TCGATAGAAA	1740
TAATCTGTAG ATTCCCTGA CCCTGCTAGC TCTTCTTGCC ACAGATTATC ATTGAGTTTG	1800
AAGGTTTCTA AGGTCAGGTA ATTACCTTGA CTTACCCACT GTTGCTGATA AGCAAGTTCT	1860
TTGTTTTCTT GTTCTAACT TCTGCCACC CCAATCAGTA AGGCCGTCAG TAAAATAGTT	1920
GTCCCTATTT TCATCACATA ATTGAAGATA AGACCAAATT TGAAAGATGA AAAACCTTTC	1980
AGCAGAGAGC TGATTGTCAT TTTTGGATT AAGAGGTAAG TCAACCAACT GATAAAGAGA	2040
TAAAGCTGCA ACAGCAAAA ATGAGACAAC CACAGCATAG GAAACAAATC TTTTGGCTTA	2100
TAATCAAGCA AGAAAAACAC GCCTAGATTG ATCACAAGAG CCCCACCTAG GAGGAGGTAA	2160
AGGTGTCCTT TTACAACATC AGCTAAAACA GCCCTATCTT GAAAACCAAG TAATTTTGT	2220
ACCCCAACTC TTTTCATCTC CATCATCGGT TGATACACTG TCACTAACAC AAGAAGCAAA	2280
ATAGCCAAGA CAAAAACAAT GGCAGATAAA AGCAAATCTC GATTATGAC TTCCACTGCA	2340
CTTTGTAGG TCGGCTCTAG CAAGGTAGCC TGGTCTATCT TGAAAAAATC GCTCCATTTT	2400
TGTACAATCC TATCCTTGTC CATCTCTGT GTAGAAGTTA TCGTATAGCG ACCATTTAAA	2460
CTACGAGATG TATCCTTGAT ATAGGTTTGA AAAGTCATAA GCTGAATAGG TTTGGCTTTT	2520
AGAAAGTCTG GAATCGTACC AAGTTTATTG GAAATTTCTT TATTACTATA GACTCCTTCA	2580
CCATCTGTGG TAAAATCAAG AGAAGAAATC CCAAACCTT GGTAGGGGAA GGTATCTTTA	2640
TCAAAAACAC CAGACTTGAC CACCTCATCA CCACTGTCTG TTTTGATGAT GGAGACTTTA	2700
TACTCCTTTG ATACATCCTC AAAAAATCGA AGAACAGACG CTGCAGGTTC GTTAATATCT	2760
TTCAAATACA AATCCAAAGA ATCTACAGG	2789

(2) INFORMATION FOR SEQ ID NO: 255:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2495 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 255:

CTGCGAATTT TATTAAAGAT AATGTGTTAA TTACAGCGGC TCACAACTAC TACAGACATG 60

1281

ACTATGGGAA AGAAGCGGAT GATATTTATG TTCTTCCGGC TGTAGTCCA AGTCAAGAAC	120
CATTTGGAAA GATCAAAGTA AAGGAAGTTC GTTATTTGAA GGAATTTAGA AATTTAAATT	180
CTAAGGATGC AAGGGAATAT GACTTGGCTT TATTAATTCT AGAAGAGCCC ATTGGTGCAA	240
AATTAGGGAC TTTGGGTCTT CCTACTAGTC AAAAAAATT GACAGGAATA ACTGTGACTA	300
TCACAGGCTA TCCATCATAT AATTTTAAAA TTCATCAAAT GTATACAGAT AAGAAACAAG	360
TTTTAAGTGA TGATGGCATG TTCTTGGATT ACCAAGTTGA TACTTTAGAG GGGTCTAGTG	420
GATCTACAGT TTATGATGCT AGTCACCGTG TAGTAGGAGT GCATACTTTA GGAGATGGAG	480
CTAATCAAAT TAACAGTGCA GTTAAATTAA ATGAACGAAA TTTGCCATTT ATTTAwTCGG	540
TTCTTAAAGG TTACTCTCTT GAAGGATGGA AGAAAATAAA TGGTAGTTGG TACCATTATA	600
GACAACATGA TAAACAAACG GGTGGCAGG AGATAAATGA TACCTGGTAT TATTTAGACA	660
GTTCCGGTAA GATGCTTACA GATTGGCAA AAGTCCATGG AAAATGGTAT TATCTCAATT	720
CAAATGGAGC AATGGTTACA GGTAGCCAAA CTATCGATGG TAAAGTTTAT AACTTCGCTT	780
CATCTGGTGA GTGGATTTAA TGTGGAGGA TATATAAAT GAAGCTTTTG AAAAAATGA	840
TGCAAAATCGC ACTAGCCACA TTTTCTTCG GTTGTGTAGC GACAAATACA GTATTTGCAG	900
ATGATCTGA AGGATGGCAG TTTGTCCAAG AAAATGGTAG AACCTACTAC AAAAAGGGGG	960
ATCTAAAAGA AACCTACTGG AGAGTGATAG ATGCCAACTA CTATTATTTT GATCCTTTAT	1020
CCGGAGAGAT GGTGTCCGGC TGGCAATATA TACCTGCTCC ACACAAGGGG GTTACGATTG	1080
GTCTTCTCC AAGAATAGAG ATTGCTCTTA GACCAGATTG GTTTTATTTT GGTCAAGATG	1140
GTGTATTACA AGAATTTGTT GGCAAGCAAG TTTTAGAAGC AAAAAGTCT ACGAATACCA	1200
ACAAACATCA TGGGGAAGAA TATGATAGCC AAGCAGAGAA ACGAGTCTAT TATTTTGAAG	1260
ATCAGCGTAG TTATCATACT TTA AAAAAGT GTTGGATTGA TGAAGAGGGT CATTGGTATT	1320
ATTTACAGAA GGATGGTGGC TTTGATTCGC GCATCAACAG ATTGACGGTT GGAGAGCTAG	1380
CACGTGGTTG GGTAAAGGAT TACCCTCTTA CGTATGATGA AGAGAAGCTA AAAGCAGCTC	1440
CATGGTACTA TCTAAATCCA GCAACTGGCA TTATGCAAAC AGGTTGGCAA TATCTAGGTA	1500
ATAGATGGTA CTACCTCCAT TCGTCAGGAG CTATGGCAAC TGGCTGGTAT AAGGAAGGCT	1560
CAACTGGTA CTATCTAGAT GCTGAAAATG GTGATATGAG AACTGGCTGG CAAAACCTTG	1620
GGAACAAATG GTACTATCTC CGTTCATCAG GAGCTATGGC AACTGGTTGG TATCAGGAAA	1680
GTTCGACTTG GTACTATCTA AATGCAAGTA ATGGAGATAT GAAAACAGGC TGGTTCCAAG	1740
TCAATGGTAA CTGGTACTAT GCCTATGATT CAGGTGCTTT AGCTGTTAAT ACCACAGTAG	1800

1282

GTGGTTACTA CTTAAACTAT AATGGTGAAT GGGTTAAGTA ATGAAGGCTA ATTGTAAACT	1860
GTGATGGATA CTTAACTTTG TATAATAGGT GGATAAAAGT CTTCACAATC AAAAAACGCA	1920
TAGTATCAAG GTTTTCTGT ACTGCCCTCA AACAGTTAGA CAATTAATTT ATCCGAAGgA	1980
TTTAGTTCTG TATTGCACAG GGCTAAGTCC TTTTAGTTTT ACCTTAATTC GTTTATTGTT	2040
GTAGTAATCA ATATAGTCTA TAATGGCTTG TTCCAATTGC TTAAGCGACT GAAACGACTT	2100
CTCATAACCG TAAACATTT CCGATTTCAG AATCCCAAAG AAGGACTCCA TCATACTATT	2160
GTCTGGGCTG TTTCCCTTAC GTGACATGGA TGCTTGAATT CCCTTACTCT CTAGGAACCG	2220
ATGATAAGAA TCGTGTGGT ATTGCCAGCC TTGGTCACTA TGGAGAATCG TATTCTCGTA	2280
GTGCTTCTCT GTGAATGCCT GTTCCAACAT TGTTTGTAAT TGTTCTAAGT TGGGTGAAGT	2340
TGAAAGATTA TAGGCGATAA TTTGCTATT AAAGCCATCT AAAACTGGTG ATAAGTAAAG	2400
CTTTTGAGTA CTTGCTGGAA TGGCAAATTC TGTACATCT GTGTAGCACT TTTCCATTGT	2460
TTTAGAGCCT TCAATTGGC CTGAATGAG ATTCG	2495

(2) INFORMATION FOR SEQ ID NO: 256:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 870 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 256:

TACCACCGTA TTCATCCAGC AAGATTGCCA TTTGTCTTTG GGTATTTTCGC AGTTCCTTTA	60
GCAAGTCATC CACAAAATA GTTTCAGGTA CAAAAAGTGG ATCTTGTAAG ATTCTCTTCC	120
AAACAATATT GTCAAAACCG TCCACAAAGC CTGCCCTTAAG GAGACTCTTG GTGTGAATGA	180
TTCCAATTAC ATTGTCTTTA TCCCCATCAT AAACCGGAT ACGAGAATAA TTTTGTTTTA	240
AAATACTTTG GATAATGGCT TGACTATCAT CCTGAATATC CACCATAAAG GCATCCGTTT	300
GAGGAACCAT AACCTCTCGT GCCATCAGTT CATCGAGCGA AAAGACACCT TGTCATCATCT	360
CAATCTCATC AGCATCCAAT GTTCTTTCAC TATTGTGTCAG CATATAGGCA ATTTTCATC	420
GGGTCATCTT TTCATCCGCA TCATCGAATG ACATAGGAGT CAAATGGCTC AAGAAATTGG	480
TCCAAGCAGC TAAAAGCCAA ACAAAGGAC TGACTAGTTT TCCGATCCCA ATGATAATCG	540
CGCTGTACG AATTGCCAAG GCATCCTTTA GATTAAAGAGC GATTCTCTTA GGATATAATT	600
CCCCAAAAC GATGGAAATA TAGGTCAAAA ATGCCAAGGA TAGAAAAGTT GCCACGGCTT	660
GTGCTGTTTC GCCATTCCCA AGCCAAGAGG CAATCACACG TCCTAGAGTA TCAGTTAAAC	720

1283

TCGCCCCGTA TAAGATTGTA ATCAGGGTGA TTCCTACCTG GATGGTTGAT AAAAAAGTGGT	780
TAGGATTTTC TAGTACCTTC AGCAGGCGGA TGTAGCGTCT GTCTCCTTCT TCCGCCTTTT	840
GTTCAACTCG GGCACGATTA AGAGAAACGG	870

(2) INFORMATION FOR SEQ ID NO: 257:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1245 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 257:

CGTTCCCAGA AGCCCGCATT CTCATCGCCA ATGTCGTGAT TGATTTGGCC CTTTCTCCAA	60
AATCCAATC AGCCTATGTA GCTATGGATA AGGCACTTGC TGACCTCAA ACATCAGGGC	120
ACTTGCCTAT TCCGCGACAC CTGCGTGATG GGCACCTACG TGGAAGCAAG GAACTGGGGA	180
ATGCCCAAGA CTATCTCTAT CCACACAAT ATCCTGGAAA TTGGGTCAAG CAAGACTATC	240
TGCCAGAAAA AATTCGTAAT CATCACTATT TCCAAGCAGA AGATACTGGT AAATATGAAC	300
GGGCTTTGGC TCAAAGAAAG GAAGCTATCG ACCGTTTGGC AAAAACTGA AATCCTTTTC	360
AAAAAATTGC ACTTTCCTCT TGATTTTTTT TGAAAAAGTG GTATCATATA AATATAGAAA	420
CGCTGTGGTG TACGACTTCA CACTTAAGTG TTGACCGACT ATTTTTTGTA TTATTAGGGA	480
AACAAAAGTC TTCTAACAGC ATGTAGGCCG TCTCACACGG AAACAGCTTC AGTTAGAGCG	540
AGTTGCCAC CTGCTTAATT GCGCGGGTTC AATACAAACC GTGAAGTTTC GGCACCAATA	600
CAGCTTTTTT CTTTGCCTCC TTAGCTCAGC TGGCAGAGCA GCGGACTCTT AATCCGTGGG	660
TCACAGGTTG GATCCCTGTA GGGGGCATAT AAATACAACA GGAAAAGCCT TATAATATAG	720
GGCTTTTTTT GCTTTCCTTT TAAAAATTGT CGTGCAATTT GCCGTGTTT TACAACAAAC	780
TTTTACAGC CATAAACTCC TCACTAATTT TTTCTCCAA GGTATGCCCA TAAACGTCAA	840
TCAACATGGA GATATCTTA TGTCTAAAA TTTGGCTCTT TGTCAACTGT AGTGGGTGA	900
AGTCAGCTAA GCTCGAGAAA GGACAAATTT TGTCTTTCT TTTTGATAT TCAGAGCGAT	960
AAAAATCCGT TTTTGAAGT TTTCAAAGTT CCGAAAACCA AAGGCATTGC GCTTGATAAG	1020
TTTGATGAGA TTATTGGTCG CTTCCTAATTT GCGTTAGAA TAGTGTAGTT GAAGGGCGTT	1080
GACGATTTTC TCTTGTCTT TTAGAAAGGT TTAAAGACA GTCTGAAAA GAGGAGGAAC	1140
CTGCTTTAGA TTGCTCTCAA TGAGTCCGAA AAATTCTCC GGTGCCTTAT TCTGAAAGTG	1200

1284

AAACAGCAAG AGTTGATAGA GCTGATAGTG ATGTTTCAAG TCTTG 1245

(2) INFORMATION FOR SEQ ID NO: 258:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1684 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 258:

ATGCCTATGT AACTCCACAT ATGACCCATA GCCACTGGAT TAAAAAAGAT AGTTTGTCTG	60
AAGCTGAGAG AGCGGCACcCC AGGCTTATGC TAAAGAGAAA GGTTTGACCC CTCCTTCGAC	120
AGACCATCAG GATTcAGGAA ATACTGAGGC AAAAGGAGCA GAAGCTATCT ACAACCGCGT	180
GAAAGCAGCT AAGAAGGTGC CACTTGATCG TATGCCTTAC AATCTTCAAT ATACTGTAGA	240
AGTCAAAAAC GGTAGTTTAA TCATACCTCA TTATGACCAT TACCATAACA TCAAATTTGA	300
GTGGTTTGAC GAAGGCCTTT ATGAGGCACC TAAGGGGTAT ACTCTTGAGG ATCTTTTGGC	360
GACTGTCAAG TACTATGTCG AACATCCAAA CGAACGTCCG CATTCAGATA ATGGTTTGG	420
TAACGCTAGC GACCATGTTC AAAGAAACAA AAATGGTCAA GCTGATACCA ATCAAACGGA	480
AAAACCAAGC GAGGAGAAAC CTCAGACAGA AAAACCTGAG GAAGAAACCC CTCGAGAAGA	540
GAAACCGCAA AGCGAGAAAC CAGAGTCTCC AAAACCAACA GAGGAACCAG AAGAATCACC	600
AGAGGAATCA GAAGAACCTC AGGTCGAGAC TGAAAAGGTT GAAGAAAAC TGAGAGAGGC	660
TGAAGATTTA CTTGGAAAAA TCCAGGATCC AATTATCAAG TCCAATGCCA AAGAGACTCT	720
CACAGGATTA AAAAATAATT TACTATTTGG CACCCAGGAC AACAACTA TATGGCAGA	780
AGCTGAAAAA CTATTGGCTT TATTAAAGGA GAGTAAGTAA AGGTAGCAGC ATTTTCTAAC	840
TCCTAAAAAC AGGATAGGAG AACGGGAAAA CGAAAAATGA GAGCAGAATG TGAGTTCTAG	900
TTCTCATTTT TTTCATGAAA ATGTGCAAAA TATAGTAGAT TGAAACTAGA ATAGTATACC	960
TCTACTTCTA AAACATTGTT AGAAATCGAT TTGACTGTCC TGTTCCTATT TCATTTTACT	1020
ATATCTTAAC AGATAGTGTA AATAAAGATA AACTATTTAC TGGCTAATTA ATCAGTTAAA	1080
CACTAGTTAA GGAGTAATGA TGAAAAAAG AACAACTA TATTGATGG CCAGTCTGTT	1140
AGCTCTTGTC TTAGGAGCAT GTGGTTTCTT GGACATATTG ATCCTGGATC ATTCTCATCA	1200
GGATTACTCT TTA CTGCTAT TTTAGAACT GGGGTGGTTT GATGGAAAGT ATTGGTCTTG	1260
TTATCGTTTC ACATTCCAAA CACATTGCAG AAGGTGTTGT TGAAGTATT AGTAAAGTAG	1320
CTAAAGATGT TCCGATTACT TATGTAAGAG GAACCGAGGG CGGAGGAATT GGAACGAGTT	1380

1285

TTGAACAAGT AGATAGGGTT GTTCCGAAA ATCCAGCAGA TACTTTACTT GCCTTTTTTG	1440
ACCTAGGTTC TGCTAAAATG AACTTAAAAA TGGTGACTGA TTTCAGTGAT AAAAGTATCA	1500
TCATCAACAG GGTTCCAATT GTAGAAGGTG CCTATAATGC AGCTGCTCTT CTTCAGGCTG	1560
GTGCAGAACT GTCAGTTATT CAAACACAGT TaGCGGAgCt TGAAATCAAT AAATAAGGAA	1620
TTTTACTATA ACTCTTTTTA TAGATAAGCT ATTGaTTATC TCAACTATAA TAATGTTAAG	1680
TnAA	1684

(2) INFORMATION FOR SEQ ID NO: 259:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 970 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 259:

AGGAGTGGAG AnATATGAAG ACACAAATTT TCACATTATT GAAAATCGTT GCTGAGATTA	60
TTATTATTTTT GCCATTCTA ACTAATCTAT AAGTTCTTTA TATTGCTGAA AACGCAATTC	120
AAAAAGGGCT ATTAATTGTG GATTTTCTAA TACCTGCAGA GATTGGATAA AGCGTTCAT	180
CTCTTTTGA TTGCTTCCCT TTGTTTGAAG AAAGACACTC ATCTTCTTTA AAAATTGCCA	240
CGATACTTTT TCAAAAACAT CATACGGTCG TAACATCCTC TCCAACTCGG CTTCGAAGAT	300
TGGGATGTAG GAGAAAAGTT TTCGCTCCAT GAGTTCTGAT AAGATATTTA AGAGTCCTTG	360
CTTCATATAC AATCGATTGT GTACTAACTC TTAAATTCT TTGGATTTTT CGAGTAAGGA	420
GGTTGATAAA AAAATCAGAT CTTGATTGCT CAAGAAGGGC ATGGTATTGC AAAAGAGATA	480
GAGTTCAAAC CAGGTCCAAG ACTCGATAGC ATAGAGATAG GTGGTCAAAA ACTCGCTATC	540
CTCCTCTGCT AGTGGGTAGC TTTTATTTAG TGAATGGATG GCATCTTTAA TCACGATGGC	600
ATTCAAACGA CGATAGGTCT GCGCCATCTG TTCTTGATCG ACTTCTCCA ATAGCTGCTC	660
TAAAGCAGCT ATATCCTGAT GGGCAAAGCG ATTCAACACC TTTCGACCGA TTCGCATATG	720
TGGAGATTCT TGATAGTTGT TGAGCTTGTG CCCAACTCA TCAAAGGTCA CATTTATACC	780
TTGGATAGCT AGAATCAACT TATCCGAGA CAGCATAGAC TGCCCTAGTT CAAACTTGGA	840
CAACTGAGAA GCTGTTAGAC CCTCACAAGC CACATCTGAC TGCTTGAGCT TTCTCGCCAA	900
ACGTAATTCC TTGTAAAATT CCCCAGTTC CATTCTCTCA ATCATCTGAC CACCTCCTAG	960
CTTTTGCAGG	970

1286

(2) INFORMATION FOR SEQ ID NO: 260:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2996 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 260:

GTTGACCACG GGTAAACTA CCCTAACTGC AGCTATCACA ACTGTTTGG CACGTCGCTT	60
GCCTTCATCA GTTAACCAAC CTAAAGACTA TGCCTCTATC GATGCTGCTC CAGAAGAACG	120
CGAACGCGGT ATCACTATCA ACACTGCGCA CGTTGAGTAC GAAACTGAAA AACGTCACCTA	180
CGCTCACATC GACGCTCCAG GACACGCGGA CTACGTTAAA AACATGATCA CTGGTGCTGC	240
TCAAATGGAC GGAGCTATCC TTGTAGTAGC TTCAACTGAC GGACCAATGC CACAAACTCG	300
TGAGCACATC CTTCTTTCAC GTCAGGTTGG TGTAAACAC CTTATCGTCT TCATGAACAA	360
AGTTGACTTG GTTGACGACG AAGAATTGCT TGAATTGGTT GAAATGGAAA TCCGTGACCT	420
ATTGTCAGAA TACGACTTCC CAGGTGACGA TCTTCCAGTT ATCCAAGGTT CAGCACTTAA	480
AGCTCTTGAA GGTGACTCTA AATACGAAGA CATCGTTATG GAATTGATGA ACACAGTTGA	540
TGAGTATATC CCAGAACCAG AACGTGACAC TGACAAACCA TTGCTTCTTC CAGTCGAGGA	600
CGTATTCTCA ATCACTGGAC GTGGTACAGT TGCTTCAGGA CGTATCGACC GTGGTATCGT	660
TAAAGTCAAC GACGAAATCG AAATCGTTGG TATCAAAGAA GAAACTCAAA AAGCAGTTGT	720
TACTGGTGTT GAAATGTTCC GTAAACAACT TGACGAAGGT CTTGCTGGAG ATAACGTAGG	780
TGTCCTTCTT CGTGGTGTTT AACGTGATGA AATCGAACGT GGACAAGTTA TCGCTAAACC	840
AGGTTCAATC AACCCACACA CTAAATTCAA AGGTGAAGTC TACATCCTTA CTAAAGAAGA	900
AGGTGGACGT CACACTCCAT TCTTCAACAA CTACCGTCCA CAATTCTACT TCCGTACTAC	960
TGACGTTACA GGTTCATCG AACTTCCAGC AGGTACTGAA ATGGTAATGC CTGGTGATAA	1020
CGTGACAATC GACGTTGAGT TGATTCACCC AATCGCCGTA GAACAAGGTA CTACATTCTC	1080
TATCCGTGAG GGTGGACGTA CTGTTGGTTC AGGTATGGTT ACAGAAATCG AAGCTTAATT	1140
CGATTTAGTT CCCAGAAGAA CAATTATTTA AGTTAGACAC TAAAAGAATC TTGCTTGGCA	1200
AGGTTCTTTT TTTAGATATT GAACTAATAC TCAATGAAAA TCAAAGAGCA AACTATAATA	1260
TATTGAAACT AGAATAGTAC ACATCTACTT CTAAACATT GTTAGAAATC GATTTGACTG	1320
TCCTGATCGA TTTGTCTTGT TCTTATTTC TTTTACTATA GAAAGTTAGC TACAGACTGC	1380
TCAAAACATT GTTTTtaggt TGTAGATAGA ACTGACGAAG TCAGLAACAT CTATACGACA	1440

1287

AGGCGAAGCT GACGCGGTTT GAAGAGATTT TCGAAGAGTA TAATACTAGA CTAAATCAA	1500
AAAGCATTAT ACAATAGTAA TATGAAATCA ATTAAGAAG AAATCCAAAC CATCAAAACA	1560
CTTTTAAAAG ACTCTCGTAC AGCTAAATAT CATAAACGCC TTCAAATCGT TCTATTTCGT	1620
CTGATGGGCA AATCTTATAA AGAGATTATA GAACTTTTAT AGTGGTTTGA AATAAGATGT	1680
GAACAACTCT ATCAGGAAAG TCAAATAAT TTATAGAAAT ATTTTAGCAG CCAAGGTGTA	1740
CTGTTATAGA TTCAATACAC TTTAGACTGT AATCAAACAA CGATTGGCG AAATGTAAAA	1800
AATATGAGGA GTTCGGACTC GACTCTCTCC TTCAAGAAAC ACGTGGTGGT CGTAACCATG	1860
CTTATATGAC GGTGAGCAA GAGAAAGTCT TTCTTGCCCG CCATTGAAG GCTACAGAGG	1920
CAGGAGAATT TGTTACAATT GATGCCTTAT TTCAGGCTTA TAAAAAGGAG TTAGGTCGTT	1980
CCTACACACG TGATGCCTTC TATCAACTGT TGAAGCGCCA TGGTTGGCGA AATATTACGC	2040
CACGTCGAGA ACATCCTAAG AAAGCAGATG CTCAAAACCAT TGTCGCGTCT AAAAATAAAG	2100
TCTCAATTCA AGAAGACAAG TGAAGTCAC CCCAAAAGTT AGACAGAAAA AATCTAACTT	2160
TTGGGGTGTT TTTATTATGA AATTAACCTA TGATGATAAA GTTCAGATCT ATGAACTTAG	2220
AAAACAAGGA TATAGCTTAG AGAAGCTTTC AAATAAATTT GGGATAAACA ATTCTAATCT	2280
TAGGTACATG ATTAATTTGA TTGATCGTTA CGGAATAGAG TTCGTCAAAA AAGGAAAAAA	2340
TCGTTACTAT TCTCTGATT TAAACAAGA AATGATTCAT AAAGTCTCAC ATGAAGGCTG	2400
GACTAAAGAT AGAGTTTCTC TTGAATACTG TCTCCCAAGT CGTACGATAC TTCTTAACTG	2460
GCTAGCACAA TACAGAAAA ACGGTATAC TATTGTTGAG AAAACAAGAG GGAGAGTACC	2520
TGAGAGCGGA GAATGCCATC CTAAAAAGT TAAGAGAACT CCGATTGAAG GAGGAAAAAG	2580
AGAAAGAAGA AAGACAGAAA TTATTCAAGA ATTAATGACT GAGTTTTCGT TAGATATTCT	2640
TCTAAAAGCC ATTAACTAG CTCGTTTGAC CTACTACTAT CACTTGAAAC AGCTAGATAA	2700
ACCAGATAAG GACCAAGAGC TTAAAGCTGA AATTCAATCC ATTTTATCG AACACAAGGG	2760
AAATTATGCT TATCGTCGGA TTTATTTAGA ACTAAGAAAT CGTGGTTATC TGGTAAATCA	2820
TAAAAGAGTT CAAGGCTTGA TAAAAGTACT CAATTACAA GCTAAAATGC GACAGAAACG	2880
AAAATATTCT TCTCATAAAG GAGACGTTGG CAAGAAGGCA GAGAATCTCA TTCAAGGACA	2940
ATTTGAAGGC TCTAAAACAA TGGAAAAGTG CTACACAGAT GTGACAGAAT TTGCCG	2996

(2) INFORMATION FOR SEQ ID NO: 261:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 837 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

1288

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 261:

CTTATCAACT CCCGACATGG CTCTCAGACC AATCCAAATC CCTAAAAAA TCAGAACAAG	60
GATGGTGGTC AAGATCAAAC TCTCGAAATA TAAAGAAAAT AGTTGCAGTA GCATGATTTC	120
TCTCATTTCT ATCTTTTTTA AAGAGTAAAC TCAGCTAGTC CAACTAACTG AGTTTTCCTT	180
TATCTATTAT ATCAAATATA AGTCCGTTTG TAACTAGCGA AGAATTCTTT TGTCCGCTCT	240
TCTTTAGGGG TGTGGATAAT CTCATCCGGA GTTCCAGACT CGATGATTTT CCCCTTATCT	300
AAGAAGAGAA TTTTATCCGC AACTTGGGCT ACAAAGGACA TGTCATGACT GACCAAAATC	360
ATGGTCTGAC CTGACTTAGC AGCATCTGCA ATAGACTTTT CTACTTCACC GACCAATTCT	420
GGGTCAAGGG CTGAAGTTGG TTCGTCTAAG AGCAAAACAT CTGGTTTCAT AGCAAGCGCA	480
CGCGCTAGGG CAACCCGTTG CTTCTGTCCA CCTGATAAAT GCGGAGGATA ATGGTTTTC	540
CGGTCCGAAA GCCCAACCTT AGCCAACCTT TCCTTGGCAA TCTTAGTCGC TTCTTGGTCA	600
GATAATTTCT TGACAACAAC CAAGCCTTCT TTCACATTAT CAAGTGCTGT TCGGCGTTCA	660
AACAAATTAA ACTGTTGGAA AACCATAGAC AACTTACGAC GTAGGGCAAG GATTCTTCTT	720
TGAGTGATTT TAGAAAAATC AACTGAAAAA CCATCAATCT GAATAGAGCC ACTGTCAGGT	780
GTTTCTAGAT AATTGAGACT GCGAGAAAGG TTGATTTTCA GCTCTGAAGA CCAATCA	837

(2) INFORMATION FOR SEQ ID NO: 262:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 868 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 262:

CCGAACAAA TGGGCTAATT AGATTATAGT AAGAAAGGTA AGTTAAAAAT GAGAATTGCA	60
ATTGGATGTG ACCACATCGT AACTGATGAA AAAATGGCGG TTTCAGAATT TTTGAAATCA	120
AAAGGATATG AAGTCATTGA CTTTGGTACC TATGACCATA CACGGACTCA CTACCCAATC	180
TTTGGTAAAA AAGTAGGGGA AGCTGTAAC AGCGGTCAAG CTGATCTTGG AGTATGTATC	240
TGTGGTACTG GTGTTGGTAT CAACAACGCT GTAAATAAAG TTCCAGGTGT TCGTTCTGCC	300
TTGGTTCGTG ATATGACAAC AGCCCTTTAT GCTAAAGAAC AATTGAACGC TAACGTTATT	360
GGTTTGGTG GTAAAAATTG TGGTGAATTG CTTATGTGTG ATATCATCGA AGCTTTCATC	420

1289

CATGCTGAAT ACAACCAAC TGAAGAAAAC AAAAAATTGA TTGCGAAAAT TGAACATGTT	480
GAAAGTCACA ATGCTCAACA AACAGACGCA AACTTCTTTA CAGAATTCCT TGAGAAATGG	540
GATCGTGGAG AATACCACGA CTAAGAGGTG ACCTATGATT TTAACAGTCA CAATGAACCC	600
ATCCATCGAT ATTTCTATC CCTTGGATGA GTTGAAGATT GATACTGTCA ATCGTGTGGT	660
GGATGTAACC AAAACGGCTG GTGGTAAGGG ACTCAATGTT ACCCGAGTAC TTTCAGAATT	720
TGGCGATTCT GTTCTTGCTA CTGGTTTAGT GGGTGGCAA CTTGGTGAGT TTTTGGTTGA	780
ACATATCGAT AATCAAGTAA AGAAAGATTT CTTCTCAATT AAGGGAGAAA CTCGTAAC TG	840
TATCGCTATT CTCCACGGAG ACAACCAA	868

(2) INFORMATION FOR SEQ ID NO: 263:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3744 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 263:

CCGTTCAAAG TCTTCATAAG ACTCGAAAGT CACAGTTCTT TCGTTCTTGC TGGCATCTAT	60
ATAGGTAATT TCAATCATGT TTAAACTCC TTTGTTTAAT GCTAACTTTA TTTTACTCCT	120
TATAAAAGAG AATGTCAAGA AAAATGATTG CGCACGCAAC TTTTTTAAAT ATCATCTTAA	180
ATCAAGAAAT CCAAACCTGC TTCCAAGCTT TCTTCGACAG TCTTTTGTAG CGAGGCCAGT	240
GTCTTTTGCC CATCATTTGT CAGGCAGATA AAAGTAGAGC GTCTATCTTG ATGGCAACAC	300
ATGCGACTGA GTAGACCGCA ATTTTGTAGT TCCAAGCGAG CCACCATCCT AGAAACTGCG	360
CTCGGGCTCA GATGAAGCTT ATCTGGCAGG TCAATCTGGC GTAGAGATTT TTCTTCAGCC	420
AAGTCCAGAT AGTAGAGCAG GTAGAACTCT TTCAAGGTCA GACTTTGCTC GCTCTGTGG	480
GCAATGGTCT CTTCCAAGAG ACTTTCAATT TCTTTCTGAC GCCGATTGAA GTCAAACCAT	540
TTTTCCAAAT AGGTCAATAG GTCTCCTTTC TTTTGTAGAG CATAAATAGA AGAAAGTCCA	600
TTAACGGGCA GTCTCTGCGT CACAAGATGA TTGCGCATGC AATAATTATA CTACTTTTCA	660
AGAATGCTGG CAAGCTCTGT TTTTGTAGTG TTTTATTTTT GTGTGAATAA TGGGGGAATC	720
CTATTGTTTC AATTCTAAC TCCTTATCAC ATTCAATTC AGATTTTATT TCATTTCTCT	780
ATCTATAGTT GCTTAGTTTA AAATAAGCAT GGTCTAATAA AGCTATGCAT ATAGTACTGA	840
TTTAAACAA GGAGCATTAG ATTCCATTAA AGGAGGGCAC AGACATGTCG AGGCGGCCAA	900

1290

AGTTTTTGAT GTCGGCGTCA GAACTCTCTT CACGTGGGAA AAGAAAGACG TAAACAAGGG	960
AACTTAGAGC GGAAAAAGCG AGTCGTCAAA AAGCGTAAGA TCCCTTTAGA AGAATTGAAA	1020
GCCTTTGTAG AGGCTCATCC AGACGCTTTT TTACGGGAAA TTGCGGCCCG TTTTGATTGT	1080
GCTTTGCCCT CCGTATGGGC AGTTTTAAAG CAGATTAAGG TCATTTTAAA AAAGACGACC	1140
AGTTTTAGGG AACAAAAGCC TGAGAAAGTT TCTGAGTTTC TTGATATTTT GGATAACCTA	1200
AAAGATTAC CAGTCCTATA TATTGACGAA ACGGGAATCG ACCGCTACCT CTATCGTCCT	1260
TATGCAGGGG CTCCTAGAGG GGAGAAAGTC TATGGCAAGA TTAGCGGACG GCGTTTGTAG	1320
CGGACTAATG AGGTGGAGCA AAAACTCAAT GGTAGTTTTC TAATCAGATA TATTGATTCA	1380
CAAATTAGAG AATGAAAGAA TAATTATGCA TAAAAATAGG AATATAAACC AAAAATTAGC	1440
TGATTATAC TCATTGCGT GTCTTTATAA AAAACTTATC TTATAATATA TATATATATA	1500
TATACAAAAT AGTAAAATGC TTTTTTTTTT TAGCAAAAAT ACCTCAAGTT TCTTGCTATT	1560
TTGGGTTCCT TATCTATAA TTATAGTATG GTAATTATT TATATCCATA CATGAAAATA	1620
ATACTCGAAA GGAAATTCA AAATATTTTT TAGACGTCAG AAGGGTGAAT ATAGAGAAAC	1680
AGACCGAGTA ACTCGGTTCA AATTAATCAA ATCAGGGAAG CATTGGCTAC GGGCCTCGAC	1740
TTCTCTTTTT GGCTTGTTA AGGTCTGCG AGGTGGTGT GATACTACTC AGGTCATGAC	1800
CGAAACGGTA GAAGATAAAG TAAGTCATT CATTACTGGG CTTGATATCC TCAAGGGGAT	1860
AGTTGCTGCG GGAGCTGTCA TAAGTGGAAC CGTTGCAACT CAAACGAAGG TATTTACAAA	1920
TGAGTCAGCA GTACTTGAAA AACTGTAGA GAAAACGGAT GCTTTGGCAA CAAATGATAC	1980
AGTAGTTCTA GGTACGATAT CTACAAGTAA TTCAGCGAGT TCAACTAGTT TGTCAGCTTC	2040
AGAGTCGGCA AGTACATCTG CATCTGAGTC AGCCTCAACC AGCGCTTCGA CCTCAGCAAG	2100
TACAAGTGCA TCAGAATCAG CAAGTACATC GGCTTCGACA AGTATTTCTG CATCATCTAC	2160
TGTGGTAGGT TCACAAACAG CTGCCGCTAC AGAAGCAACT GCTAAGAAGG TCGAAGAAGA	2220
TCGTAAGAAA CCAGCTAGTG ATTATGTAGC ATCAGTTACA AATGTCAATC TCCAATCTTA	2280
TGCTAAGCGA CGCAAGCGTT CAGTGGATT CATTGAGCAA TTGCTGGCTT CTATAAAAAA	2340
TGCTGCTGTT TTTCTGGCA ATACGATTGT AAATGGCGCC CCTGCAATTA ATGCAAGTCT	2400
AAACATTGCT AAAAGTGAGA CAAAAGTTA TACAGGTGAA GGTGTAGATT CGGTATATCG	2460
TGTTCCAATT TACTATAAAT TGAAAGTGAC AAATGATGGT TCAAAATTGA CCTTTACCTA	2520
TACGGTTACG TATGTGAATC CTAAAACAAA TGATCTGGT AATATATCAA GTATGCGTCC	2580
TGGATATTCT ATCTATAATT CAGGTACTTC AACACAAACA ATGTTAACCC TTGGCAGTGA	2640
TCTTGGTAAA CCTTCAGGTG TAAAGAACTA CATTACTGAC AAAAATGGTA GACAGGTTCT	2700

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ATCCTATAAT ACATCTACAA TGACGACGCA GGGTAGTGGG TATACTTGGG GAAATGGTGC	2760
CCAAATGAAT GGTTCCTTTG CTAAGAAAGG ATATGGATTA ACATCATCTT GGACTGTACC	2820
AATTACTGGA ACGGATACAT CCTTTACATT TACCCCTTAC GCTGCTAGAA CAGATAGAAT	2880
TGGAATTAAC TACTTCAATG GTGGAGGAAA GGATGTTGAA TCTAGCACGA CCAGTCAGTC	2940
ACTTTCACAG TCTAAGTCAC TCTCAGTAAG TGCTAGTCAA AGCGCCTCAG CTTCAGCATC	3000
AACAAGTGC GCGGCTTCAG CATCAACCAG TGCCTCGGCT TCAGCGTCAA CCAGTGCCTC	3060
AGCTTCAGCA AGTACCAGTG CTTCAGTCTC AGCATCAACA AGTGCTTCAG CCTCAGCATC	3120
GACAAGTGCC TCGGCTTCAG CAAGCACATC AGCATCTGAA TCAGCGTCAA CCAGTGCTTC	3180
GGCTTCAGCA AGTACCAGTG CTTCAGCTTC AGCATCAACC AGCGCCTCGG CCTCAGCAAG	3240
CACCTCAGCT TCTGAATCGG CCTCAACCAG CGCCTCGGCC TCAGCAAGCA CCTCAGCTTC	3300
TGAATCGGCC TCAACCAGCG CCTCAGCCTC AGCATCAACG AGTGCTTCGG CTTCAGCAAG	3360
CACAAGCGCC TCGGGTTCAG CATCAACGAG TACGTCAGCT TCAGCGTCAA CCAGTGCTTC	3420
AGCCTCAGCA TCAACAAGTG CGTCAGCTCA GCAAGTATCT CAGCGTCTGA ATCGGCATCA	3480
ACGAGTGGT CTGAGTCAGC ATCAACGAGT ACGTCAGCCT CAGCAAGCAC CTCAGCTTCT	3540
GAATCGGCCT CAACAGTGC GTCACCTCAG CATCGACAAG CGCCTCAGCT TCAGCAAGTA	3600
CCAGTGCTTC AGCCTCAGCG TCGACAAGTG CGTCGGCCTC AACCAGTGCA TCTGAATCGG	3660
CATCAACCAG TCGCTCAGCC TCAGCAAGTA CTAGTCATC GGCTTCAGCA TCAACCAGTG	3720
CCTCGGCTTC AGCGTCAAAC AGTG	3744

(2) INFORMATION FOR SEQ ID NO: 264:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 795 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 264:

CGATAAAGAG GCCTTGAGTA ATCTCAATTT GCAGATTGAA AATGGAGAGA TTATGGGCTT	60
GATTGGTCAT AATGGGGCTG GAAAATCGAC CACTATAAAA TCCCTAGTCA GTATCATTTT	120
ACCCAGCAGT GGTCGTATTT TGCTAGACGG TCAGGAGTTA TCGGAAAATC GCTTGGCTAT	180
TAAACGAAAG ATTGGCTACG TAGCAGACTC GCCTGACTTA TTTTACGCT TAACGGCCAA	240
TGAATTTTGG GAATTGATCG CCTCATCCTA TGATCTGAGT AGATCTGACT TGGAGGCTAG	300

1292

TCTAGCTAGG CTATTGAACG TTTTGTATTT TGCTGAAAAT CGCTATCAGG TTATTGAAAC	360
TCTTTCTCAC GGAATGCGTC AGAAAGTCTT TGTCATCGGA GCACTCTTGT CTGATCCCGA	420
TATTTGGGTC TTGGATGAAC CCTTGACTGG TTTGGATCCC CAGGCTGCCT TTGATTTGAA	480
ACAGATGATG AAGGAACATG CACAAAAAGG GAAGACAGTC TTGTTTCAA CTCATGTCCT	540
AGAGGTGGCA GAGCAAGTCT GTGATCGGAT TGCCATTTTG AAAAAGGGGC ATTTGATTTA	600
TTGTGGTAGT GTAGAGGACT TGAGAAAAGA TTACCCAGAC CAGTCTTTGG AAAGTATCTA	660
CCTTAGTCTT GCTGGTAGAA AAGAGGAGGT TCGGATGCG TCTCAAGGTC ATTAATAAAT	720
TAGTTGATAT CAATATCCTT TATTCATCTC AAGAAGCTAA TCTGGCTAAT CTACGAAAGA	780
AGCAGGCTAA GAATC	795

(2) INFORMATION FOR SEQ ID NO: 265:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2231 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 265:

TGTAATGTG CTTGGCAGCw TCCTTGACAC TGCTACTACC ATTTCCCATATA GCGACCGACA	60
TACCAACGCC AGCCAGCAT TCAAGATCAT TATCTGAGTC ACCAAAAGCC ATGACTTGGT	120
TGAGGTCAAA GCCATATTCT TTCCCAATC GCGAATGCC TTCTAATTTA GAATTCCCT	180
GATTGATGAC ATCCGATGCA AAAGGATTGC TACGTGTCAA TTCAAGTCT TCAAAATCAG	240
CTGCCGCCTT CTCAGATTCT TCTGGTGTC TACGATCAA AACTTGGTAG ATAGGCTGAT	300
TCATCAGGTG AAGCAGGTCC TCTTCCTTTT GGGGAACAAC CTTGCTGACC ATGCGATTAA	360
AAGACTGACT CACCGTCCGA GTTAAACAG AGGGAACGAA GCGACTAATT CGTTGGGAAA	420
AAGAATCCAG ACCAAAGGAC ATGATTTTAG AACCAACAT GGCATCCTTG GTCCCTAGAG	480
CAATCTCCGT GCCCTCTTTT TTAGCATAGC TAATTAGATG GCGCAAATGT AACTTGAAAA	540
TAGGGCTCGT GAACAAGACT CTGTCTTAC TAAAGATATA CTGGCCATTA TAGGTTACCG	600
CAAAATCCAG ATCCAAATCG TCCATCAATT CCTTAACAAA AAAAGTCTCT CGCCCTGTCTG	660
CTACGCCAAC TAGTACCCCT TGTCTTTGA CAATCTTAAT CGCATCCTTA GTGGATTTCA	720
AAACTCTT GCGATTGTG ACCAAGGTT CATCGATATC AAAAAACA GCTTTGACTT	780
CCATCTATC CCAATCTCCC CTTTGTGAT ACAATGATTA TACCACATT CAGAAAGAGT	840
GAGTAAATCA TGCCTAAGAA AATCCTTGT TTACATACGG GTGGAATAT TTCCATGCAG	900

1293

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GCCGATGCTT CTGGCGCTGT TGTGACGAGT TCAGATAATC CCATGAACCA TGTGTCCAAC      960
CCACTTGAAG GAATCCAAGT CCACGCCTTG GACTTTTSTA ACCTTCCAAG TCCCATATC      1020
AAACCCAAAC ATATGCTGGT CCTCTACCAG AAAATTAAAG AGGAAGCAGA TAACTACGAT      1080
GGAGTGGTGA TCACACACGG AACCGATACT TTAGAGGAAA CAGCCTATTT CCTTGATACC      1140
ATGGAAGTTC CCCATATGCC TATCGTTCTA ACAGGAGCCA TCGGTACtCC AATGAGCTCG      1200
GTAGTGATGG TGTTTATAAT TACCTAAGTG CTTTACGAGT GGCCAGCGAT GACAGGGCTG      1260
CTGACAAAGG AGTTTGGTTC GTTATGAACG ATGAAATCCA CGCTGCCAAG TATGTCACCA      1320
AAACACATAC GACTAATGTC AGCACCTTCC AGACTCCAAC ACATGGCCCC CTTGGTCTCA      1380
TCATGAAACA GGAAATCCTC TACTTCAAAA CAGCTGAACC TCGTGTTCGC TTTGACCTTG      1440
ATCACATACA AGGTTTAGTC CCTATCATCT CGGCTTATGC TGGTATGACA GATGAGCTGA      1500
TTGATATGCT GGATTAGAA CACTTGGACG GTTTGATTAT CCAAGCCTTC GGAGCTGGTA      1560
ATATTCCCAA AGAAACGGCT CAAAAATTAG AAAGCCTTCT GCAAAAAGGA ATTCCAGTCG      1620
CTCTGGTATC ACGATGCTTT AACGGTATTG CCGAGCCTGT TTATGCATAC CAGGGTGGGG      1680
GCGTACAGTT GCAAAAAGCA GGCCTTTTCT TTGTAAAGA ACTCAACGCC CAAAAGCTC      1740
GCTTGAAACT CCTCATCGCC CTCAATGCCG GACTAACAGG ACAGGCTTTG AAAGACTATA      1800
TGGAAGGCTA ATACTCTTCG AAAATCTCTG CAAACCACGT CACGTCCGCT TACCCTATGT      1860
ATGGtACTGA CTTCGTCAGT TTCATCTACA ACCTCAAAAA CATGTTTGA GCTGACTTCG      1920
TCAGTTCTAT CTACAACCTC AAAACATGT TTTGAGCTGA CTTCGTCAGT TCTATCTACA      1980
ACCTCAAAAA CATGTTTGA GCTGACTTCG TCAGTTCTAT CTACAACCTC AAAACATGT      2040
TTTGAGCTGA CTTCGTCAGT TCTATCTACA ACCTCAAAAA CATGTTTGA GCTGACTTCG      2100
TCAGTTCTAT CTACAACCTC AAAACATGT TTTGAGCTGA CTTCGTCAGk TCTATCTACA      2160
ACCTCAAAAA CATGTTTGA GCTGACTTCG TTAGTTTCAT CTACAACCTC AAAACATGT      2220
TTTGAGCTGA C                                     2231

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(2) INFORMATION FOR SEQ ID NO: 266:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1310 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 266:

1294

GAGTCAAAGG CTCCGAGGTT GACTTTTAC AAGGGGACAG GTGAATATTA TCTAGACCTG	60
TCAGAAATTC TCTTCTTTGA AACAGAAGGG AGCAAGATCT ACGCTCATAA CCAGAAGGAA	120
GCTTATGAGG TTCGCCTCAA GCTCTATGAG TTGGAGTCTA TCTTGCCTCG CTATTTTAAT	180
CGAGTTTCCA AGTCAACGAT CGCAAACATC CGTCAGATTT ACTCAGTGGA CAAGTCCTTT	240
TCAGGAACGG GCACCATTTC CTTTATCAG ACGCACAAGG AGGTTTCATGT CTCACGGCAT	300
TACCAATCCC TCCTAAAAGA AAATCTAAGA AACATGAGGT AAAAAACATG AAAAAGAAAG	360
CATTTGGTAT TGTTTATTG GTTTTAGCAG CTTGGATCTT GCTGCAAGGG AATTTTGGA	420
TTCTTCTTTT GGATGGTAAA ATATGGCCTT TACTAGGTAT TGTTTTTTTT GCTTATAAGT	480
CCATTGAGTC CATCCTTAGA CGTCATCTCA CTTGGCAGT TTTTACAGGT TTAAGTGGCG	540
TCATCATTGC AAATTACGCT TATGACTTGT TACCAGTTAC CAATCATTCT CTTATTGGG	600
CTAGCATCTT GGTGGTACTT GGTGTGGTT ATCTGACGCA TTCAAGTAAG TTCTGGAATG	660
AAAAAAATG GTGGTACAAT GGGAAAAAA CAGTCGTCAC GGATAAGGAA GTCGCTTTTG	720
GTAGCGGGAC CTTCTATAAG CAAGATCAAG ATCTCGTAGA TGACCAAGTG GAAGTCGCTT	780
TTGGGGATGC TAAATCTAC TATGATAATG CAGAGATGCT AGGTGATTTT GCAACTTTAA	840
ATATTGAAGT GGCTTCGGG AATGCAACCG TCTATGTTCC ACAACACTGG CGTGTAGATT	900
TGAAAGTAGA AACCTCCTT GGTGCAGCTA AGGCTGACGC TCCTGTAGCC CCAACCAGCA	960
AAACCTTGAT TATCCGTGGA GATGTGGCTT TTGGGAAGTT GGAATTTGTC TACGTTAAAT	1020
AAAAAATCT TCACTCAAC CATCAAAATA GACGTACTAA GAGTAGGAAA TTGATGCCTT	1080
GCTCTGATTT CAGTTCTATG GTTGTTAGAC TTTAAAAAT GAAATGCTGC CTTTAAAGT	1140
TGTATATTTT TCGATATTTT GGCTTTTACG TTTGATGTAT CTATGTACTA CAGCGTAGAT	1200
GATGTAGTGT CAAATGCTT TAAAAACGG ATGATATTGG ACAGTTTTTT TGCCTTTAAT	1260
TGCTCAGGAA CCATGAAAGT CAGTACCTGG GTTTATGACA AGGGAGAATG	1310

(2) INFORMATION FOR SEQ ID NO: 267:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5922 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 267:

ACTCTGATTT GATTGGAACG ACAGTCGGTG CCATTGCAGT TACTTCAAAC GTAACGACTT	60
ATGTTGAGTC TGCTGCTGGT ATCGGTGCAG GTGGACGTAC TGGTTTGACA GCCTTGGTTG	120

1295

TAGCTATCTG	TTTTGCGATT	TCAAGCTTCT	TTAGCCCACT	TCTAGCGATC	GTACCAACAG	180
CGGCTACAGC	TCCAATCTTG	ATTATCGTTG	GGATTATGAT	GCTTGGTAGC	TTGAAAAATA	240
TCCATTGGGA	TGATATGTCT	GAAGCAGTTC	CTGCCTTCTT	CACATCTATC	TTTATGGGAT	300
TCAGCTACTC	TATCACTCAA	GGGATTGCAG	TTGGTTTCTT	GACTTACACT	TTGACTAAGC	360
TTGTTAAAGG	TCAAGTTAAA	GATGTTTCATG	TCATGATTTG	GATTTTGGAT	GCCTTGTTTA	420
TCCTTAACTA	CATCAGCATG	GCCTTATAAT	AGAATGACCC	AGGGGGATTT	CCCCCCTTTT	480
TTAATACAaG	GAGATAGGTG	ATGAAAGAGA	AAAATATGTG	GAAAGAATTG	TTGAATCGTG	540
CAGGCTGGAT	TTTGGTCTTT	TTACTTGCCG	TCCTTTTATA	TCAGGTTCCC	CTAGTGGTTA	600
CCTCTATTTT	GACTTTAAAA	GAAGTAGCCC	TGCTACAGTC	AGGGCTGATA	GTGCTGGCC	660
TTTCAATTGT	GGTCTGGCT	CTATTTATTA	TGGGAGCTCG	TAAAACCAAG	TTAGCTAGTT	720
TTAATTTTTC	TTTTTTTAGA	GCTAAAGATT	TGGCACGTTT	GGGCTTGAGT	TATCTAGTTA	780
TTGTCGGGTC	AAATATACTT	GGTTCCATTT	TATTGCAACT	GTCAAATGAG	ACGACAACAG	840
CTAACCAGTC	TCAGATTAAT	GATATGGTTC	AAAATAGTTC	GTGATTTC	AGTTTCTTCT	900
TGCTAGCCTT	GCTTGCTCCG	ATTTGTGAGG	AAATCTTGTG	TCGTGGGATT	GTTCCTAAAA	960
AGATTTTCCG	AGGCAAGGAG	AACTTGGGAT	TTGTAGTCGG	TACGATTGTG	TTTGCTTTAT	1020
TGCATCAACC	AAGTAATTTA	CCTTCTTTAT	TGATTTATGG	AGGTATGTGG	ACACTTCTAT	1080
CTTGACAGC	CTACAAGACC	CAACGTTTGG	AAATGTGCGAT	CTTGCTTCAC	ATGATTGTTA	1140
ATGGGATTGC	TTTCTGTTTG	TTGGCTCTTG	TGGTGATTAT	GAGTCGGACA	TTAGGAATTT	1200
CTGTTTAAAA	GTTTTTATGT	AGGAACCGAC	CTCTTTCTAC	CAGGGAAGA	TGAATGCAAT	1260
CGTGTCCATC	TTTTTCTTTT	TATGGTAAAA	TAGAAAAATA	ATATGATGAA	AATCCTTGAG	1320
GGAGTGACCG	ATATGTCAAG	TAAAGCCAAT	CATGCAAAGA	CAGTTATTTG	CGGAATTATC	1380
AATGTAACCC	CAGACTCCTT	TTCGGACGGT	GGTCAATTTT	TTGCTCTTGA	GCAGGCGCTC	1440
CAGCAGGCTC	GTAATTTGAT	AGCAGAAGGA	GCCAGTATGC	TAGATATCGG	CGGAGAATCG	1500
ACTCGGCCGG	GAAGTAGCTA	TGTTGAGATA	GAAGAGGAAA	TCCAGCGTGT	TGTTCCAGTG	1560
ATCAAAGCGA	TTGCAAGGA	AAGTGATGTC	CTCATCTCTA	TTGATACTTG	GAAGAGTCAA	1620
GTAGCAGAGG	CTGCTTTGGC	TGCTGGTGCC	GATCTAGTCA	ATGATATCAC	TGGTCTTATG	1680
GGTGATGAGA	AAATGGCTTA	TGTGGTAGCT	GAAGCGAGAG	CGAAAGTGGT	CATCATGTTT	1740
AACCCAGTTA	TGGCTCGACC	TCAGCATCCT	AGTTCGCTTA	TCTTCCCTCA	TTTGGTTTTT	1800
GGTCAAACCT	TTACAGAAAA	AGAGTTAGCT	GACTTTGAAA	CATTGCCAAT	CGAAGACTTG	1860

1296

ATGGTGGCTT	TCTTTGAACG	AGCACTAGCG	AGAGCGGCAG	AAGCTGGTAT	TGCACCAGAA	1920
AATATCCTGT	TGGATCCAGG	AATTGGCTTT	GGTCTGACCA	AGAAAGAAAA	TCTGCTTCTT	1980
TTACGGGACC	TGGATAAACT	ACATCAGAAG	GGCTATCCAA	TCTTTCTCGG	AGTGTGCGCG	2040
AAGCgATTTG	TCATCAATAT	CCTAGAGGAG	AATGGTTTTG	AAGTCAATCC	TGAGACAGAG	2100
CTTGCTTTCC	GAAATCGGGA	CACGGCTTCG	GCTCATGTAA	CTAGTATCGC	TGCGAGACAG	2160
GGTGTAGAAG	TGGTGC GCGT	GCATGACGTA	GCTAGTCACA	GGATGGCAGT	TGAAATTGCC	2220
TCTGCCATTC	GTCTGGCTGA	TGAAGCGGAA	AATTTAGATT	TAAAACAATA	TAAATAAGAT	2280
GAAAGAAATT	GAAACAATC	AGTGGATTGC	TAATAACCGG	ACGGATCAAC	CGCATTTTGG	2340
CTTGGAACGA	ATGGTGGAAC	TGTTAGCTTT	GCGTGGCAAT	CCCCATCTCA	AACTCAAGGT	2400
CCTCCATATC	GGAGGGACTA	ACGGCAAGGG	CTCGACTATT	GCTTTTTTGA	AAAAGATGCT	2460
AGAAAAGCTA	GGGTTGAGAG	TTGGCGTGTT	TAGCTCGCCC	TATCTCATTC	ATTACACAGA	2520
CCAGATTAGC	ATCAATGGGG	AATCGATCTC	AGAAGCGAGG	CTAGAAGCTC	TCATGGCAGA	2580
CTATCAGTCT	TTGCTGGAGG	GAGAAACGGT	CGCCAATTTA	CAGGGCACAA	CCGAGTTTGA	2640
GATTATCACA	GCCCTGGCCT	ATGACTACTT	TGCCTCAGAG	CAAGTAGATG	TGGCCATCAT	2700
GGAAAGTTGC	ATGGGTGGAC	TTTTGGATAG	TACCAATGTC	TGTCAGCCCA	TTTTGACAGG	2760
AATTACAAC	ATTGGCTTGG	ATCATGTGGC	TCTACTTGGT	GACACCTTGG	AGGTCATAGC	2820
AGAGCAGAAG	GCAGGTATTA	TCAAACAAGG	GATGCCCTTG	GTAACAGGGC	GTATTGCTCC	2880
AGAAGCCTTG	GCTGTGATTG	ACCGCATTGC	GGAAGGGAAA	GATGCGCCGA	GACTTGCCTA	2940
CGGGACAGAT	TATCAGGTTT	GTCATCAAGA	AAGTGTGGTG	ACAGGGGAAG	TCTTTGACTA	3000
TACAAGTGCT	GTCAGACAAG	GTCGCTTCCA	GACTAGCCTG	CTTGGTTTGT	ACCAAATAGA	3060
GAATGCTGGG	ATGGCCATAG	CTTTACTTGA	TACTTTTTGT	CAAGAAGATG	GTCGAGAGCT	3120
AGCAAGCAAT	GATTTTCTTG	GTCAAGCCTT	GGAAGAAACA	AGTTGGCCAG	GGCGTTTGGA	3180
AATCGTGTCA	AGAGATCCCT	TGATGATTTT	GGATGGAGCC	CACAATCCCC	ATGCTATCAA	3240
GGCCTTGTTG	GTAACCTTGC	AAGAACGTTT	TGCGGATTAT	CATAAGGAAA	TCCTCTTCAC	3300
TTGTATCAAA	ACCAAGGCCT	TGGAGGATAT	GTTGGACTTG	CTGGGAGCCA	TGCCAGTTAC	3360
CGAGCTTACT	CTAACACATT	TTGCGGATAG	TCGGGCGACG	GATGAAAACG	TGCTGAAAGA	3420
GGCAGCTAAG	TCTAGAAATC	TCAGCTACCA	AGATTGGCAT	GATTTTCTAG	AGCAGAATTT	3480
GACAGATAAA	AAAGAAGAGA	AACAAACAGT	TAGGATTGTC	ACAGGTTTCT	TGTATTTCTT	3540
GAGCCAAGTG	AGGGCCTATC	TGATGGAGAG	GAAGAACGAG	AATGGATACA	CAAAAGATTG	3600
AAGCGGCTGT	AAAAATGATT	ATCGAGGCTG	TAGGAGAGGA	CGCTAATCGC	GAGGGCTTGC	3660

1297

AGGAAACACC	TGCTCGTGTA	GCCCGTATGT	ATCAAGAGAT	TTTTTCAGGT	CTTGGTCAAA	3720
CAGCAGAGGA	ACATTTGTCA	AAATCCTTTG	AAATTATTGA	CGATAATATG	GTGGTAGAAA	3780
AGGATATCTT	TTTCCATACC	ATGTGTGAAC	ACCACCTTCT	GCCATTTTAT	GGTAGAGCGC	3840
ACATGCGCTA	CATTCCAGAT	GGTCGTGTGG	CAGGCTTGTC	TAAGCTAGCC	CGTACGGTTG	3900
AAGTTTATTC	GAAAAACCA	CAAATTC AAG	AACGTTTGAA	TATCGAAGTG	GCCGATGCCT	3960
TGATGGACTA	TCTAGGTGCT	AAAGGAGCCT	TTGTTGTTCAT	TGAGGCGGAA	CATATGTGTA	4020
TGAGTATGCG	TGGTGTTAGA	AAACCAGGCA	CTGCAACCTT	GACGACAGTA	GCTCGTGGTC	4080
TATTTGAAAC	AGATAAGGAT	CTCCGTGACC	AAGCTTATCG	TTTAATGGGG	CTATAAAAAG	4140
AATCGCCTTC	AAGCGGATTT	TTCTAGAAAG	GAATCATTAT	GGATCAACTG	CAGATTAAGG	4200
ATTTGGAAAT	GTTTGCCTAT	CATGGTCTTT	TTCTAGTGA	GAAAGAATTG	GGGCAGAAAT	4260
TTGTCGTTTC	AGCCATCCTA	TCCTATGATA	TGACCAAGGC	AGCTACAGAC	TTGGATTTAA	4320
CAGCCTCTGT	CCATTACGGA	GAATTGTGTC	AGCAGTGGAC	GACTTGGTTT	CAGGAAACGA	4380
GTGAAGATTT	GATTGAAACG	GTAGCCTATA	AACTGGTGGA	ACGTACCTTT	GAGTTTATC	4440
CTCTTGTC	AGAAATGAAG	TTGGAACCTGA	AAAAACCTTG	GGCACC GG TG	CATTGTGCAC	4500
TAGATACTTG	CTCGGTAACC	ATTCATCGCC	GCAAGCAACG	AGCCTTTATC	GCCCTAGGAA	4560
GCAATATGGG	AGATAAACAA	GCAAACCTGA	AGCAAGCCAT	TGACAACTC	CCAGCTCGTG	4620
GCATCCATAT	TCTCAAAGAG	TCCAGTGTCT	TAGCGACGGA	GCCTTGGGGT	GGAGTGGAGC	4680
AGGATAGCTT	TGCCAATCAA	GTGGTTGAGG	TGGAACCTG	GCTACCAGCA	CAAGACTTGT	4740
TAGAAACCTT	GTTAGCCATT	GAGTCAGAGC	TGGGACGGGT	GAGAGAAGTG	CATTGGGGAC	4800
CTCGTTTGAT	TGATTGGAC	TTGCTCTTTG	TGGAGGACCA	GATCCTTTAT	ACAGACGACC	4860
TCATATTGCC	TCATCCTTAC	ATAGCGGAAC	GCCTTTTGT	CCTTGAGTCT	TACAGGAAAT	4920
TGCGCCTCAT	TTTATCCATC	CGATATTAAA	ACAACCGATC	CGCAACTTGT	ATGATGCTTT	4980
GAAAAAATAG	AAAAACTCTA	GTTTTCAGTT	ACTTGCAACT	GAAGGCTAGA	GTTTTTATAC	5040
TCTTCGAAAA	TCTCTTCAAA	CCACGTCAGC	GTCGCCTTAC	CGTACTCAAG	TACAGCTTGC	5100
GGCTAGCTTC	CTAGTTTGCT	CTTTGATTTT	CATTGAGTAT	TAAAATAGGT	CATTTTCTTC	5160
TGGGAGGAGG	ATAGTTTCTC	TACCGTCCAT	GTCTAAAACC	AGTACTCTTG	GGGGATAACG	5220
AGGGTCGAAA	GGATGGTTAA	AGTCAAAATC	AATGGCTGTA	GGGAGGTGTT	GACTTGAAAA	5280
GTGGAAGGTA	ATCTTTCCTT	GGTTATTAAG	CAATTGAAAC	TCGAGTTCTT	CTTCCAATTC	5340
AAAGACATTT	TTTAAGAAAT	GGTCGATGAT	ATACCAAAAA	GAGTCAATGA	TGTCATCAGG	5400

1298

CAAGCTGGTA ACAATACCAA AACTAGCAGA TCGCATGTGG GTATTGGTAA AAGCCATATC	5460
TCTGTCCCCT TTCTTTTCCC TTATCATACA GCAAATAGGA TTAATAATCA AGAAAAGGTG	5520
ATTTTGTGAA AAGGATTTTA GTTACAGGGA GAAATAGGGA AAAAATTCCT AAAAATCTAC	5580
CGAAGTTAAT AGGTAAATTC CCAAATTAAC TTGATTATAT AACTTTCAGT TACTTTGAGA	5640
AGTTACCGAA AAATATTTT CATATCTATT GACTTTTAGG GGTAAAATTT GGTATGATAG	5700
TAGGCGGTAT TGTTTACCCC ATTTGAAAGG CCCCGGAACC TTCCAAATAC TTTTCGATGG	5760
GAAGGAACAC CCATCACCGT AAACAAAAAT CGAACTATAT ATAGGAGAAA TCATGAACAA	5820
AACAACATTT ATGGCTAAAC CAGGCCAAGT TGAACGTAAA TGGTACGTAG TTGACGCAAC	5880
TGATGTACCA CTTGGACGTC TTTCTGCAGT AGTTGCTAGC GT	5922

(2) INFORMATION FOR SEQ ID NO: 268:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1988 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 268:

TAACATCTA CGATGAGCTG TTGTGATTCT CATTAGTTCC CCTTTCCCAA GAGGCATAGG	60
GGTGCGCATA ATAGATGTGC TCCTCAGAAA ATATATCAAA CAAGCGATTG AATTCGGTTC	120
CATTATCTGC CGTGATGGAA AGAATCTTGT GTTGTTTTAA GATGAGTTT AGAGCCTGAT	180
TGACCACCTC AGCACTTTTA TTTGGAATCA ATCGGATGAT CTGATGTCTA CTCTTTCGAT	240
CCGTCAAGAC AATCAAGCAG TAGTTTTTCG ATCTCGTAAG TAGAACCGTA TCAATCTCAT	300
AATGCCCATT CTCCAAGCGA AGATTGATAG CTTCAGGCCG CTGTTCGATG GATTGACCAG	360
CAGGTTTAAA GTTGGTGCTA GCCTGTTTCT TAAGCGCTTT TCCTTTTCTA GGGTAAAGCA	420
AATCCTGCTT GCTTAACCCC AATTTTCCAT GATGAATCCA ATAGTAAATG GTTGAAATTC	480
CCACGTTAAC CCCTTTAGCC ATAACCATCA TTTCAGGCGA AAATTTTGG TTATGATAGT	540
GGAGAATCTT TTCCTTTAGT TCCTTGGTCA AGCTTGATTT CTTGACCGAG CGCTTGCGAT	600
TGTTTTTATA AGACTGTGA GCGTAGTCGG CAGAATAAAC CTCTTTGAAG CGCCCTTTTC	660
CAAGACATTG TCGGACTGTC CCACGCTTGA TTTCAAGTGT ATAGTTTGAG GAGCTTTTCC	720
AAGTAGAGAG GCAATTTCTC TATTTGATTT TCCTTCTTTT TTCCATCTTT CGATTAAGCG	780
ACGGCTATCG ATTGTCAAAT GTTTGGCTTT TGTAGTATAA TTGTCTGCA TCTCTGTGCC	840
TTTCTTGTGT TTGTGGTTGA ACAACAAGTA TAACACAGAG GTGCTTTCTT ATGCCTACAA	900

1299

GAGCTTTCAT TATTTCCATT TTCTTTTGGA TTCTACTCTA TTCTGAAAAA CTGTGTATA	960
TTTACTGAAG CTAGCAAGTC TTACCTGTAA ATTTAATGAA AGCAACACAA AATCCGAGAG	1020
GGGAATCTCG GATTAATAGA TAGAGAGTTT TAGTTTAAA TAAATTGTTT AAAATATCAA	1080
CAACATCACT TCTTTTCTTA ACCTGATAAG TCTTGATTCC TAATTTTGGG GCTACGATTA	1140
TATTGTCCTC AATATCGTCT AGAAAGACAC AATTTCTAGG TTATAACTGG TATTTATCGA	1200
TAGTTACTCA TATACATCAG TCCACCTCCA TACTTATGTG CGAGCCTCTC TTTGTATTAT	1260
ACCTCCATAC TCACCTTACA GATTCTTTTG GTAATAATAT CTTTGCCTAA TGTAGAGACA	1320
GTCTTGCAA GAAAAACTT CCTTGTAGCC ATGTTTCTGA TAAAAGTCCG GTGCCTGGAA	1380
CTGGTAAGTA TTGACAAAGG CAAAACAACA ATTCGATTG TTAGCTTAC TTTCTGCCTG	1440
TTGCAATAGT TTTGAACCGA TTCCTTGCCC TCGCAGTTCC TCTTTTACAA ACAAATACTC	1500
GATTTCTAGC CAATTTCCAA AAGTCTCTGC TATCAAACCT GCCAGGAGAT TGCCCTTTTC	1560
ATCTTCGACA TAAAGATTAA GTGGCTCACT TTCAGCCTCT TCTCTTTTGG AACGGTTATA	1620
AACACGAATC AGATTCCCTA TTTCTTGCGA TTTATGTGAT TCCTTATTTT CCAATCTAAA	1680
GTATAGTGAA ATGAAATAAA ACATGCGCAA ATCGATTAAG GAATTTAATC TAATTTCTAA	1740
CAATGTCTTA GAAATCAAAG TGTACTATTT TAACTTCAAT GCACATACA TCTAATACTC	1800
AATAAAATC AAAGAGCAA CTAGGAACT AGCCGCACCT TGCTCAAAAC ACTGTTTGA	1860
GTTTGTAGAT AGAACTGACG AAGTCAGCTC AAAACATAGT TTTGAGGTTG TAGATGAAAC	1920
TGACGAAGTC GGCTCAAAAC ATGGTTTGA GGTGTAGAT GAAACTGACG AAGTCAGCTC	1980
AAAACAGG	1988

(2) INFORMATION FOR SEQ ID NO: 269:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 709 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 269:

CCGGATATTT GTTTTATGTA ATTTTCTTGC AAGTTTCTTC TTAGTAGCTT GTCAGTCAGG	60
TTCTAATGGT TCTCAGTCTG CTGTGGATGC TATCAAACAA AAAGGGAAT TAGTTGTGGC	120
AACCACTCCT GACTATGCAC CCTTTGAATT TCAATCATTG GTTGATGGAA AGAACCAGGT	180
AGTCGGTGCA GACATCGACA TGGCTCAGGC TATCGCTGAT GAACTTGGGG TTAAGTTGGA	240

1300

AATCTCAAGC ATGAGTTTGT ACAATGTTTT GACCAGTCTT CAAACTGGTA AGGCTGACCT	300
AGCAGTTGCA GGAATTAGTG CTA CTGACGA GAGAAAAGAA GTCTTTGATT TTTCATCCC	360
ATACTATGAA AACAAAGATTA GTTCTTGGT TCGTAAGGCT GATGTGGAAA AATACAAGGA	420
TTTAACTAGC CTAGAAAGTG CTAATATTGC AGCCCAAAAA GGGACTGTTC CAGAATCAAT	480
GGTCAAGGAA CAATTGCCAA AAGTTCAATT AACTTCCCTA ACTAATATGG GTGAAGCAGT	540
CAATGAATTG CAGGCTGGAA AAATAGATGC TGTTCATATG GATGAGCCTG TTGCACTTAG	600
TTATGCTGCT AAAAACGCTG GCTTAGCTGT CGCAACTGTC AGCTTGAAGA TGAAGGACGG	660
CGACGCCAAT GCCGyTGCTC TTAGAAaATA GTGATGATTT GAAAGAAGT	709

(2) INFORMATION FOR SEQ ID NO: 270:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1680 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 270:

TATAAAATGT TAAGTTAAAT GATTTCAAAA TTCAGAAAGG GATTGCTTTA TGCAGTTCCT	60
TTTTATTTTA ACAGGAGTGA AACTATAGTG TTTCTAAATT GTGAATCAAT CAAAAGTAT	120
TGTGATGGGG CTATTCTAGC TTTAGAAACC TTCAAAAATT AAAATTTAAG GCAATCAATT	180
ACTTGAAGA GTATGAAAGC ATTTAGTTTA TAGGAATTCT AGGTCTAGAA TTACATATAT	240
ATATTTATGA AGACGGGGTG TTCGATAGTT AGTATTGTTC TATTCTGAAA GATTTGAGCT	300
GTCAGTTGTA TAGAAAGTGT TCGAATTTTT TTAAGTGATT AAATTAGTTA ATTGTATGAG	360
GTGCTTTATG ATATAATGTT CTTAATGAAT TTTCAGAAAG GAAAACCTCA AATTGTTCTA	420
CAAAATTTCTA CTCTTCGACC TCGACCACAC TCTTCTTGAT TTTGATGCTG CTGAGGATGT	480
GGCTTTGACC CAACTTCTAA AAGAAGAAGG AGTTGCGGAT ATTCAGGCTT ATAAAGATTA	540
TTACGTTTCCT ATGAACAAGG CTCTCTGGAA AGACTTGGAG CTGAAGAAAA TCAGTAAACA	600
AGAGCTGGTT AACACGCGCT TTTCTCGTTT ATTTGCTCAT TTTGGACAGG AAAAAGACGG	660
TAGTTTCTCT GCCCAGCGTT ACCAATTTTA CCTCGCCAG CAGGGACAAA CACTATCGGG	720
CGCTCATGAT CTCTTGACA GCCTCATTGA GCGTGATTAT AACTTGTATG CTGCGACAAA	780
TGGCATTACT GCCATTGAGA CAGGACGTTT GGCTCAATCT GGCTAGCAC CTTATTTCAA	840
TCAAGTCTTT ATCTGAGAAC AGTTGCAAAC TCAAAAGCCG GATGCTCTTT TTTATGAAAA	900
GATTGGCCAG CAAATTGCTG GATTTAGTAA AGAAAAGACG CTGATGATTG GAGATTCTCT	960

1301

AACCGCCGAC ATTCAAGGTG GCAATAATGC GGGGATTGAC ACTATCTGGT ATAATCCTCA	1020
TCACCTCGAA AATCACACAC AAGCCCAGCC GACTTACGAA GTCTATTCTT ACCAAGACTT	1080
GCTGGATTGT TTAGATAAAA ATATTCTTGA AAAGATCACA TTTTAAAGGA GACGAGCTAA	1140
TGACTACAAA AAAGCTAATA TTACTATTGA AGAGTACATT GAAATGCTCTG AAGTTGATTT	1200
TAATGAAGCT GTTAATTATG AATTTACATC TGACACTTGT CAATTAGCAA ATAGTATTTA	1260
TCAATCTCTT TTTAAGTTTT TTGATAAGAA AAATTTCTCT GCGGATTAA TTTTACTTG	1320
GAAATCTCCA TCATTAGTCA AAGAAGGGGA TTATATTGGG AGAAGGGATT CACAAGTAGA	1380
TAATCTTAGA GTAATAGGAA ATATATTTC GAATTATCTT ACTAATCGAA AATATAGCCT	1440
CAATATGAAT CGTAATGGCT GTATGGGAGA TTTTCCTCAT GACTTTTTTG ATATATACCT	1500
AGATCATGTA GCAAATATG CCTACGAACA AAAAGTTAAT AATATTAAAG AGTATTATCC	1560
TTTAAAAAGA GCGATTTTAC ACCAAGAGAA TGCATTGTAT TTTGATTTT TTTCTAATTT	1620
TGACGACTTT TTAGAAAAAA ATTATTTAAA GACTATATGG CAAGTTTCTA AAGAACTCC	1680

(2) INFORMATION FOR SEQ ID NO: 271:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 598 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 271:

AGCTCGGTAC GTAGTATnTG TGGTGCATAA ATGAGTGAAA AGAGGATAGA GAGGATGAGG	60
CCGATAAGAA CACCGGTAGC TGCATCGTGA AATACTTGTT TTTTCATAGT TCTAATTTCT	120
CCTTGATGGT TTTTAGATAA CGGCGTGAAG AGTAGGTGAA GCTTTCGTTT TTCAAGAAAA	180
TTTCTACCAG ACCGTTTGGC GTGAGCTTGA GGTGAGAGAT GGAATCGATA TTGATGATTT	240
CTGATTGGGA AATTTGGATA AAATTGGTTG GCAAGAGTTT AAGAACCTGA TAGAGTCGCA	300
AATCAATGCT GTAGGTCTGA CTCGCGGTTT CTGCTAGAAC CTTCCGATTC TCGATATAGA	360
AGCGCTGAAT CTTGCCAATC TCAACTAGAT AGACCTGATC ATCGATTTTT CCTTTGATTT	420
TTTCTCTTTG GTCCAGATTT TCTGCGAACT CGATGACTTT CTGGACTTTT TCGGTTTCTT	480
GAGGTGCTTG GACAATCAGC TTTTCCTCCT CGTAAGTCTC ACTAATCTGT AGTTCTACTT	540
TCATAGTTTT CTCTCCTTTT CAGTTATACA AGGTTGTGAT CACTTCCTGT ATATCCGG	598

(2) INFORMATION FOR SEQ ID NO: 272:

1302

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1099 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 272:

CCAGCAAATC AATAACTGCA ATTGCTATAA AATGGATTCT ATAGAGTTTT TTCATGACAA	60
GACCTCCCTC TTTTATCTAA CTTCACTCTA CTCCAAAAGA ATGGGAGTTA CAACTAAAAT	120
GATAAAAATA GCAGAAGGGA GATTCTCTTA AGTTGGCTAG TATTCTTTAT TTGAGTTTCC	180
TTCTATTATC TAACTTCTTC ATCATTCAG ACAATAAAG CTCCGATTGC ATTGAGGATA	240
TAAAGATGT ATTTACCGAT ATTGGCGAAG TTTCTTGAA TACCAGCTTT TGTCAGCTGA	300
ACGAAATTGT AAATCAACCA AAAGCCCCAC TGAGTTGTTA GTTTTAATGC ATTCAAAGCA	360
TTGGCAATGA GGGACAGTGC AAAGGCAATA GTTGTTACGT AGGCAAGGAG ATTCATCTTG	420
CCCCCATATC CGATATAGTT GGTACAAAAG GCAAAGAGGA AGGCGATGAT GGAATGATG	480
ATGGCCGCCA ATTTTACCTG TTTTGGCTC ATTTGGTTGG GTCTGCCTTC TTGCGAAGCT	540
TCCCACTTCT TTATAGCAA GGTATAAATG AGGAAGGTGA CGGGATAGGT AATGATGGCC	600
GCCTTATTC CAAGGATATA ATCAATAGCA CCGGACAAAA TGGTATTAAC AATACCAAAG	660
TAATTTCCCC ATTTGCTTAA TTTCCCGTC AAACGACTGG ACAACATGGA AATCCCAACG	720
TTGGTTACGG AAATCAATCC AAAGGTACA AGAGCTGTCC ATGATCCCCA GTCTACAAAT	780
TTATCGAGGT GTGAGTTGAG GTAACCAGAT GCAATCGCAA TCCCAACGAC CAAAGCAACC	840
CCGAAGAGGT CAACTATTT AGATGTAGCA AAAATTTTA GTGATTTTTT CATAGGTAA	900
ACTACCTTTC TTTTTTCAA ATATTCTCCC ACCAAATGAA AGTAAAATAA AATGATAGAA	960
ATAAAACCTT GAAAATAAAG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT	1020
TATGGAGCCT ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA	1080
AACAACATCAT TAGAAAGAT	1099

(2) INFORMATION FOR SEQ ID NO: 273:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2723 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 273:

1303

CTGGGATTCA CGTGAAAAGG AAGCCCAGAG AGTAGCCAGG TGTACTGCTA GAACAGTGAG	60
TGAAATTGAA TATTACCATA GAGAGTCAAC CCAGATAGCT CAGGCTTTAG TTGAAAATCA	120
AGCTCGTATC GAGGGAATCT ATAAATACTT TAGCCTTAGC ATGCCAGACT ATTTTACTG	180
GCAATTAGAG CGGAAAGCTT CGCCTTATAT ATCAGTCTCT CTGTATGAAA ATGTTGATGA	240
CCTCTATGTT CGAAATGATT TTGTAAGTGG GGTGGCCATT GCTTTTCAAG ATTACAAGGA	300
AGTCTATGTT TCTACTAAAG ACAAACGTAG GkKAGAAAA ATCAGGGCTG AGGATTTCAA	360
ACCAGCAGGA AATAGTTTGG CCATTCCAGT GTCAGATCCA GTGTCAGATC AAGACTTAGG	420
AGTGATTAC ATCTCCTTGG ATCCTGCTGT TTTATACCAT GCCATTGATA ATACTAGAGG	480
TCATACTCCG ATGGCAGTAA CAGTGACCTC ACCTTTTGAT ACGGAGATT TTCATATGGG	540
TGAGACAGTT GATAAGGAGA GTGAAAATTG GCTAGTTGGC TTAACCTCTC ATGGATATCA	600
GGTTCAGGTG GCAGTTCCTA AAAACTTTGT TTACAAGGA ACAGTGACTA GCTCTGCTTT	660
GATTGTGGGT TTGAGCCTTC TCTTTATTGT CATTCCTTAT CTGACTTTGA GGCAGACTTT	720
TGCTAATTAC CAAAAGCAGG TAGTGGATT AGTAGAATCC ATTCAAGTCA TTGCTCAAGG	780
CGAAGAGGGG CGTCGGATTG ACATTTCCGA GAAAGATCAG GAATTACTCC TAATCGCGGA	840
GACGACCAAT GATATGTTGG ATCGATTGGA AAAGAATATC CATGATATTT ACCAGTTAGA	900
GCTTAGTCAA AAAGATGCCA ATATGCGAGC CTGTCAGGCG CAAATCAATC CTCATTTTAT	960
GTATAATACG CTGGAGTTCT TGCGCATGTA TGCAGTTATG CAGAGTCAAG ATGAGTTGGC	1020
AGATATCATT TATGAATTCA GTAGTCTCTT GCGTAACAAT ATTTCCGACG AAAGAGAGAC	1080
CCTCCTCAAA CAGGAATTAG AATTTGCGG TAAATACAGC TATCTCTGCA TGGTTCGCTA	1140
TCCCAAGTCC ATTGCCTATG GTTCAAGAT AGATCCAGAG TTAGAGAATA TGAAGATTCC	1200
CAAGTTTACC TTGCAACCGC TGGTAGAAAA CTATTTTCGCG CATGGTGTG ACCACAGGCG	1260
GACAGATAAT GTGATTAGCA TCAAGGCTCT TAAACAGGAT GGTTTGTGG AAATTTTGGT	1320
GGTCGATAAT GGTAGAGGAA TGTCGGCTGA AAAGTTGGCA AATATCCGAG AAAAATTAAG	1380
TCAGAGATAT TTTGAACACC AAGCCAGCTA CAGTGATCAA AGGCAGTCTA TCGGGATTGT	1440
CAATGTACAC GAGCGTTTTG TGCTCTATTT TGGAGACCGC TATGCCATTA CTATAGAGTC	1500
TGCAGAGCAA GCCGTGTTT AGTATCGTAT TACAATTCAA GATGAGTAGA AAGGGAGAAA	1560
ATGTATAAAG TATTATTAGT AGATGATGAG TACATGGTGA CAGAAGGTCT GAAGCGTTTG	1620
ATTCCCTTTG ATAAGTGGGA TATGGAGGTC GTCGCAACAG CCAGTCATGC CGATGAAGCT	1680
CTAGAATATG TTCAGGAAAA TCCTGTCGAT GTCATCATTT CCGATGTCAA TATGCCAGAC	1740

1304

AAAACAGGGC TTGATATGAT TCGGGAGATG AAAGAGATCT TACCAGATGC TGCCTATATC	1800
CTGCTCTCAG GTTATCAGGA GTTTGATTAT GTAAAAAGAG CAATGAACCT TAGTGTGGTG	1860
GACTATTTGG TCAAGCCTGT TGATAAGGTA GAGCTGGGAA ATCTGCTGGA GAAGATTGCA	1920
GGTCAGCTCG GCGAGAGAGG GAAGAAAAGT CAGACTCTTA GTCAAGAATT AGACGAGGCT	1980
GGATTTGTTA GTTATTTAGG GGATAAGGAG AATTGGTGGA TAGGTCTATC CAAGGAAAAA	2040
CAAGGTTCCT TCACCATTCC CTACTATGTC TTGGGTCAAG ACTGGCAGAT TTTCATTTC	2100
GGCCACCCCC TAGATGGTTT AGTCGTTACA CCTTTTGAAG CTCCTTATCA AGAACACTTT	2160
GAACGCTGGA AGCTGAATGC TGAGAAAACC CTCTTTTACG GTTCTGTAAA TCTGCAGCAG	2220
TCTGAGAGTC TCTTTGCCTA TTACGAACCG ATTTATAGGG TTATCATTCA GGGAAATCTC	2280
AATCAAATCG TAGAAGAGTT AAATCTCTTG GAGAAGGTAG TTCTTGAAAA TACACCTCGT	2340
GTTCGATTA CTAAACAGCT TTTTATCCAG TTGTCATGG ATGTTTTCCA TTTATTTGAA	2400
CATCTCAAAG CTGATGATAT GACGGACATT GTCAAAACCA TTCATGCTAT TCAATCCTTC	2460
GATGAATTGG TTTCTTATAT CAAGGAAACT CTGATCAGCT TTTTCGGTCA ATACCGTATG	2520
AATGAAAATG TGGTCAGTGT GCTGGAAGTC ATTGGTCGTG ATTACCAAAA AGAGCTTTCC	2580
CTCAAGGATA TCAGTAAGGC CCTCTTATC AATCCTGTCT ATCTAGGGCA GTTGATTAAG	2640
CGTGAAACCG ATTCGACCTT TGCAGAGTTA CTAAACAAAC AACGTATTAA GGCTGCCCAG	2700
CAGCTCTTGC TTTCAACTAG TGA	2723

(2) INFORMATION FOR SEQ ID NO: 274:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 836 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 274:

CCGCAGTTTT TTAAACCGT ATATAAGTAT AGCATAGTCA AAAAAAGAAT GCAAGATTTT	60
TGCAAACTTT TTAAATTT TTCGTAATTT TTCTTTTAAA GTTCTACTGT CAGGACTTGA	120
CCTTGCTTAA CAACCTGTTT TCCGGCGATA TAAACATCAT CTACATCACT AGATTTAACT	180
GCATAAACCA GGTGAGACAG CATATTTTCC TGAGGTGGA GATGAATTTT CCCTGTGGT	240
TGAATGACCA GAAAATCTGC TTGCTTGCCG ACTTCCAGAC TTCCTATCTG ATTTTCCATT	300
CCAAGGACCT TAGCCCCCTC GATTGTCAGT ACCTTGAGAG CTGTTTCGAT TGGAACTGG	360
CTGGCATCCC CACTTTTCAT CTTCTGAAGA AGAGCTGCAG TCCTTCCTTC CTCAAACATA	420

1305

TCTAGATTGT TATTGGAAGC AACCGAGTCA GTCGCAATTC CGACTGCTAC TCCCGCTTTT	480
TGGAGCTGGA TAATTGGAGC AATTCCTGAT GCCAGTTTGA GGTACTGAT AGGATTGTGG	540
GCGATAGCnA CTTGAGAAGA TGCCAAGCGT TCAATTTCTC TCTCGTTTAA TTCGACCCCG	600
TGAGCAAATA CGGACGGATG ATCTAAATAA CCCAGTTCTT CAAGAAAAGC AAGGGGGCGT	660
TTGCCGTATC GTTTGAGGAT AATTCCTGAC TCCTCCTTGG TCTCCGCCAC ATGGACATGG	720
AGCGGAATAT TTAGCTCTTT TGCCATTTC AACTCGCTT CCAGCAAGTC TCTACTGCAG	780
CTATACGGAG AATGAGGTGC TACCATAACC TTGAAATTTG GATTTTATA TTTTAA	836

(2) INFORMATION FOR SEQ ID NO: 275:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2335 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 275:

ATTTTATTTT ACTTTTAGG TGGTCTGGGG CTATTCTTAT ATAGCnTCAA GACCATGGGA	60
GACGGTTTAC AACAAGCTGC TGGAGATCGC CTGGGTTTTT ACATTGACAA ATATACTAGT	120
AATCCTTTGT TTGGAGTTCT GGTGGTATT GGGATGACTG CTCTAATCA GTCTAGTTCT	180
GGTGTAAACAG TTATCACAGT CGGCCTGGTC AGTGCCGGTC TCTTAACCTT ACGTCAGGCT	240
ATCGGGATTG TCATGGGTGC TAATATTGGG ACAACTGTCA CATCCTTTCT CATCGGTTTT	300
AAATTAGGTA ACTATGCCCT ACCTATGCTC TTTATCGGTG CCGTCTGTCT TTTTTTTACG	360
AAAAATCGGA CAGTCAATAA TATCGGACGC ATCCTCTTTG GTGTCGGTGG TATCTTTTTT	420
GCCCTCAATC TCATGAGCGG CGCAATGGCT CCACTCAAGG ATTTACAGGT CTTAAGGAC	480
TATATGATTG AGCTAAGTAA GAATCCTGTT TTGGGTGTCT TTGTCGGTAC TGGCTTGACC	540
TTGCTAATTC AAGCTTCTTC GGCTACCATT GGGATTTTAC AAAACCTCTA CGCCGGCAAT	600
CTAATTGATC TACAGGGAGC TTTGCCAGTT CTATTGGTG ACAATATCGG GACAACCATT	660
ACAGCCATCA TTGCCTCTTT AGGGGCTAAT ATTGCAGCTA AACGGGTAGC AGGAGCTCAT	720
GTTCCTTCA ACGTTATCGG AACAGTTGTC TCGTTATTTT TTCTAGTTCC TTTTACTGTC	780
CTGATTCAAT GGTTTGAAGC TACGCTAAAT CTAGACCCGG AAATGACCAT CGCCTTTGCT	840
CACGGAACCT TTAATATTAC CAACACCATT GTCCAATTTT CATTTATCGG AGCTCTGGCT	900
TACTTTGTAA CCAAGATTAT TCCTGGAGAG GACGAGGTG TCAAATACGA ACCCTTATAT	960

1306

CTTGATGAAC ATTTTCATCAA ACAGGCCCCA TCTATCGCTC TAGGAAATGC TAAGAAAGAG	1020
CTCTTGCACT TAGGAAACTA CGCTGCTAAA GCCTTTGACC TTTCTATAA GTACATCATT	1080
GACTTGGATG AAAAAAGTGC TGAAAAAGGG CATAAAACCG AAGAAGCAAT TAACACCATC	1140
GATGAGCAAT TAACACGTTA TCTCATTGCC CTTTCAAGCG AAGCTCTCAG CAAAAAGAA	1200
AGTGAAGTGC TTACCAATAT CCTTGATTCC TCCCCTGATT TGGAACGGAT TGGAGACCAC	1260
ACGGAGGCTC TACTCAATCT GACTGACTAT CTTCAACGGA AAAATGTTGA ATTTTCTGAT	1320
GCCGCCTTGA AAGAATTAGA GGAAGTTTAC CGCCAAACTA GTGACTTTAT CAAAGATGCT	1380
CTGGATAGTG TGGAAAACAA TGATATTGAA AAAGCACGCA GTCTTGTAGA ACGTCATGAA	1440
GCAATCAATA AGATAGAACG TGTTCTCAGA AAAACCCACA TCAAACGCCT CAACAAAGGC	1500
GAATGTTCAA CACAAGCTGG GGTCAACTTT ATCGACATCA TCTCACACTA CACTCGTGTA	1560
TCAGACCACG CTATGAACCT TGCTGAAAAG GTTTTTGCAG AACAAATCTA AGAACCAAGA	1620
AGCTATCCAT CATAATTGGA TGGCTTTTTA CTTTTTCCTA AGCAAGACTA GGATGAATGA	1680
AACTGAAAGA GTATTCTGCA GATATATAGT CCCCAATTAT TCACCCCAA TCTAAAAACC	1740
ATCCAGAATC CTTGCCTTAG CTTAGATCCT GGATGGTTTC TTTTTTCACC CAATGGGTGT	1800
TTTTTACTAG AAAAAAAGA GTTCCCTT TATGGTATAA GTGTAGAAA AAACACAAA	1860
AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA GTCTTTTAC	1920
CACTATCTT TCGATCGAGC TCATTTAACC CAGTATGGTG GTCTTATCTT TTTTCAGGAA	1980
CTTTTTTCCC AGTTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC GAATGACCAA	2040
CGCCGCTACT GTCGTTATTC GGATTCAGAT ATCCTTGTCC AGTTCCTCTT TCAACTGTTA	2100
ACAGGTTATG GAACGGACTA TGCTTGTAAG GAATTGTCAG CTGATGCCTA CTTTCCAAA	2160
TTGTTGGAAG GAGGGCAGCT TGCTTCACAG CCAACCTTAT CCCGTTTTCT TTCCAGAACT	2220
GACGAGGAAA CAGTCCATAG TTTGCGATGC CTCAACCTG AATgGkCGAA TTCTTTTAC	2280
AGTTTCACCA GCTAAACCAA CTCATTGTAG ATATCGATT CACCCATTTC ACAAC	2335

(2) INFORMATION FOR SEQ ID NO: 276:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 752 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 276:

CGGATTCCT GTTGTGACT AATCAATAAC ACAGTAGAAA ATCTCACAGC AGTCTATTAG 60

1307

TTGCTTTTCA TACTAGGCAA GTGACTGAGG CTTGTACTTG GGTACAGCAA GGGAGCTTAA	120
GGCCGTAGAA GAGAAAAATA GTAGACTGAA AACCCGCAAG ACTTCATCAT TTCGAGAAGT	180
GACGTGGGAG ATGAAAATCG ATTGAACCAC TTACAAGGAG AATAGAAAAT GGCTAAAAAA	240
AGCAAACAAC TTCGTGCTGC TCTTGAGAAA ATCGACAGCA CAAAAGCATA CAGTGTAGAA	300
GAAGCTGTAG CACTTGCAAA AGAAACTAAC TTGCAAAAT TTGATGCAAC TGTAGAAGTT	360
GCTTACAAC TGAACATCGA CGTTAAAAA GCTGACCAAC AAATCCGTGG AGCAATGGTA	420
TTGCCAAACG GTACTGGTAA AACTTCACGT GTTCTTGTTT TCGCACGTGG TGCAAAAGCT	480
GAAGAAGCAA AAGCTGCTGG TGCAGACTTT GTTGGTGAAG ATGACCTTGT TGCTAAATC	540
AACGACGGTT GGTGGACTT CGACGTAGtT ATCGCTACAC CTGATATGAT GGCTCTTGTT	600
GGACGTCTTG GACGTGTCCT TGGACCACGT AACTTGATGC CAAACCCTAA AACTGGTACT	660
GTAACATGG ATGTTGGCAA AGCGGTGAA GAGTCTAAG GTGGTAAAT CACTTACCGT	720
GCTGACCGTG CAGGTAACGT TCAAGCAATC AT	752

(2) INFORMATION FOR SEQ ID NO: 277:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2643 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 277:

GTCAACATTG ATTTCAAGGC TGTTTGCTTT CTATCTCCCC TTTTCATAA TGTATAATAA	60
AATGAAATAA TAACAGGACG AATTGATCGG GACAGTCAA TCGATTCTA ACAATGTTTT	120
AGAAGTAGAG GTGTACTATT CTAGTTTCAA TCTACTATAT TTTCGTACAG GTGCTTCAAC	180
CATTTGAACG ATTTCAAATC CTTCTTTTTG GTAAAGATTC TGAGCTCTTT GATTGCGCTC	240
GAAGACATTT AGAGAAATAC TGTCTATATC TCTATTTTCA AATGCTAAAC TAACAAATTT	300
CCTTAAAGCC TTGCTACCTA AGCCTTGCTC CTGTTTCTGG GGGTTGATAA AAAATCTCCC	360
GATATGAAGA TTGCTGTCTT CTAGCCTGAT TTTCTGGATA AATCCCACAA ACTCTTGTTT	420
ATCAAAGATT GAAAAGACTC CTTCCAAGGC TTGAAGTGTC AGTAGAAAAG GAATCCTTGG	480
TCCCATCCAT TGTTCTTGAA AGGATTGACC TAGGGAGTTG GACCACTGGC ATACAAATTG	540
AGCGTTTTCT GTGCTCACCT TTTCTTCAA ACGAATTGTC ATCTTTTCCT CACCACCTTA	600
TCTATGTTTC TCATTATAC TATTTCTCCC ATTTTTTACG AATAGATAAG TATGATTGAT	660

1308

TTTTATTTT TTCTCGTCGG GAGCATTCTA GCTTCCTTTC TTGGTTTGGT CATTGACCGT	720
TTTCCAGAGC AATCCATTAT CAGTTCAGCC AGTCACTGCG ATTCCTGTCA GACTCCCTTG	780
CGTCCCTTAG ATTTGATTCC GATTCTCTCA CAGGTCTTCA ATCGCTTTCG CTGTCGCTAC	840
TGCAAAGTTC GCTATCCTGT CTGGTATGCC CTCTTGAAT TAAGCTTAGG ACTCCTCTTT	900
CTGCTTTACT CTTGGGGATG GCTCTCCTTG GGGCAAGTCG TCCTAATCAC CGCTGGTTTG	960
ACCTTGGGTA TCTACGACTT TCACCATCAG GAATATCCCT TACTGGTCTG GATGACTTTC	1020
CAGCTAATCC TAATAGCTTC CTCTGGCTGG AATCTGGTCA TGGTCTCCTT CCTCATACTT	1080
GGAATTTTGG CTCATTTTAT CGATATCCGC ATGGGTGCAG GGGATTTCCCT CTTTTTAGCT	1140
TCTTGTGCTC TCGTCTTAG CGTAACGAG TTAGTGATCT TGATTCACTT CGCTTCTGCG	1200
ACGGGTATCC TGGCCTTTCT CCTGCAAAAG AAAAAGGAAA GACTTCCTTT CGTGCCTTTC	1260
CTCTTACTTG CTACTTGTTT GATTATTTT GGTAAGCTAC TGCTTGTCTG ATAAATCCA	1320
ATTTCTGCCA TATATCCTTC ATGAAATAT TTACAGTAA AATTATAAAT TATTTCTTTT	1380
GTACAAAGGG ATGATGTTAT CAAATCGATC TGTTCTTCTA TCTTCTTGAT ACTGATCAAA	1440
AAATTTTATT TCGACTGAAA ATATTTGCTT TATAAACTGT AAACGAATAC TTTGTTTAGA	1500
CATTATAGTC GCTAGACTGA CTAGATGATT ACTCAAAACG ACGTCCAGAA TACTCTTTAC	1560
TTTGCTTGGT TTTTAAACAA AAATTTGATC ATCCAAGGGT TCAATCATT TGTAACTTTT	1620
TTGCGCAATT TGACGATAAA AGTAAGAATG TTGCTTTGGA CTCATAATC CTAACCTAAA	1680
AGCTCGATAC TCTAAAGCCT GTATCGAAAC ATTCAAATCC GACTTCAATA AAATATAACT	1740
ATCAGGATTG CTGACACGCT TGCCAACCTT CTCTTCAAT TTGACTAAAA ACTCTTCTTT	1800
TGGCAATAAA AAACATGATG CAAAATAATT TGCTTCTGTC TCCAAACGAT CGCCATCTTC	1860
ATTCATATCT TTATATTTAT GTAAAAGAAT ATGTCCTAGC TCATGAGCTA AGTCAAAATT	1920
TCGACGTACA GATGATTTAT TCGTTCCTAA CACAATATAA GGTCTTCCCA ATTTTGACCA	1980
TGCGCTATAA GCATCAGCTT GGCCATTAAT TAATCGTTCC ACGATATAGA TGCTGAACG	2040
TTCTAATTTA TAAAGCAAAT CATGATTATC TTTTGAAATA CCTAATTTT CCCTGGCATA	2100
AAGAGCCAAT TCCTCAATGG ATCTCCCTT ATGATAAGAT TCACTCACTA CATTACTTAG	2160
GTCATGAATT ATAATATTAG GTATAATTAC AAACTTTTCA AAATAATCAA TCAAACTATC	2220
TACCTTATGT AAATACATAG TTTGAATATC TATTGTTTTT CGTGTGCTA GGTCTGCATT	2280
TCTAAAGGCA ATTACAGAAG AATCAAATCG AATGCTCTCT TCTTCTGTT CAAAATAAGT	2340
TAAATCAACA TGAAATTGGT TGGCCAAATG CATTTTGGTT GATAATTTAG GTTTCGTTTC	2400
GTGGACTCA AACTGCCAAA TGGCTTGTTT CGTTAAATTA ATTCTCTGAG CTAATCTGCT	2460

1309

TCTACTTAAA CCATTTAACA GCCGTAATTC TTTCAATACC CGACCATTAA ACATTTACAT	2520
ACTCCTTACT ACTTTTGACC TTCTTGTTTT TCTATTCTTG GAATAATTTC AAAATCTTCT	2580
GTTTCCGATA ATTCTGAAAA ATTAGGAATA TCTTGATATT TAGCTTCTTC GAAATGGTAC	2640
GGG	2643

(2) INFORMATION FOR SEQ ID NO: 278:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 582 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 278:

TGACCAGTGG CAAATGGCT ATCCAAATGC AGATGTTATT ATCGATGATA TCATCTCAGG	60
GCAAGCCTAC GTAGCCTTGG AAGAGGGAGA ACTGCTAGCC TATGCTGCTG TGACCAAGAG	120
TCCAGAGGAG GCCTATGAAG CTATTTATGA GGGAACTGG CAAGCTGGAG AGTCAGAGTA	180
TCTAGTCTTT CACCGTATTG CTGTGGCAGC AGATGTGCAG GGAAaAGGAG TTGCTCAAAC	240
CTTCTTAGAG GGCTTGATTG AAGGTTTTGA TTATCTTGAT TTTCGCTCAG ATACGCATGC	300
TGAAAACAAG GTTATGCAAC ATATTTTGA AAAACTTGGT TTTAAACAAG TCGGTAAGAT	360
GCCAGTAGAT GGCGAACGCT TGGCCTATCA AAAATTAAAG AAATAATGCA AAAGAAGTAT	420
GTAAAAATCC TCTACTCCTC ACCAATTGGT ATTCTATCAC TTGTAGCTGA TGACCATTAT	480
TTGTATGGAA TTTGGGTTCA GGAGCAGAAG CATTTTGAGA GGGGACTAGG AGATGAAACG	540
ATAGAAGAAG TTGTWAGTCA TCCTATTTTA GACCCAGTTA TT	582

(2) INFORMATION FOR SEQ ID NO: 279:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 554 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 279:

CCCAAGCTAC TAAGAGACTA AAAGTTGCTA GAGAAGCAAG AGAAAGTGTG AATCTTTTAA	60
ATTTTCATGAT GAATTCCTT TCTGCTACCA ATTTAGAGAA ATTTTCTCTA ACCAGCAATT	120
CCCCTAGTAT AACAAGTTCA AAAAATGGAG TCAATTTATC TGCTCACGGT CCAGCAGGTA	180

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GCCCCGTA	CTCTGAGATAA	AATAGAGAGA	CCCTGTAACG	AACAGCAAGT	CTTGAGCGTC	240
TGCCCTTT	CTCTCAAAAATCGC	TGATAAATTC	TCGGTAAGAA	GAAACTATAT	CGTAACCTGT	300
CACATCCCT	TTCGTCCAAAG	CCCCCTGATA	GTCAAAGCCG	GTCACCTTGA	GTTCCACCTG	360
AGGCAATTT	TTCAGTCAGAT	AACCCAACAT	CCCTTGATAA	TCCTTACGTT	TCAAGGATCC	420
AAAGAGGAT	TGAGGTCGAT	AGCCTTCCTG	CTCTTTTCT	TTGATAAACT	CAGCCAAGCG	480
AGTCAAGGC	AGGAGGTTAT	GAGCACCATC	CAAATAAATC	TGTGGGCGAA	TACGCTCCAA	540
CGGAsCAGCC	CAAT					554

(2) INFORMATION FOR SEQ ID NO: 280:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 280:

CCGGTTTTTC	AAATGAATTT	CTTGGTTGTG	GCTAAAAAAT	ATGCTACACT	ATCAATATGA	60
AAATTTTAAT	CCCAACAGCA	AAAGAAATGA	ACACAGACTT	CCCAAGTATC	GAGGCAATTC	120
CTTTAAACC	AGAAAGTCAG	GCCGTGCTTG	ATGCCTTGGC	TCTCTATTCT	GCCAGTCAAT	180
TGGAGAGTTT	CTACAAGSTA	TCAGCTGAGA	AAGCGGCGGA	AGAAATTC	CAATATCCAAG	240
CTTTGAAAAG	GCAAACTGCT	CAACACTATC	CAGCCTTGAA	ACTTTTGTAT	GGGCTTATGT	300
ACCGCAACAT	TAAGAGAGAT	AAGCTGACCG	AGGCGGAACA	AGATTATCTT	GAAAATCATG	360
TTTTCATTAC	CTCGGCTTTG	TACGGTGTG	TTCCAGTCTT	GTCACCCATG	GCTCCTCACC	420
GTTTGGATTT	TTTGATGAAA	TTAAAAGTCG	CTGGTAAGAC	TTTGAAGAGC	CATTGGAAGG	480
CAGCCTATGA	TGAAACTCTG	AAGAAGGAAG	AAGTGATTTT	CTCTCTCTTG	TCATCAGAGT	540
TTGAGACTGT	ATTTTCTAAG	GAAATCAGAG	CAAAGATGGT	GACCTTCAAA	TTCATGGAGG	600
ATAGAGGCGG	TCAGCTGAAG	ATTCACCTCAA	CTATCTCCAA	GAAAGCGCGC	GGGGCCTTTC	660
TAACAGCTTT	AATAGAAAAT	CAAGTACAAA	CTGTGGGGG	AGCACGTCGC	TTGAACTTTG	720
CTGGATTTGT	TTACCGAGAA	GATTTGTCAC	AACCACAGGG	GGATGG		766

(2) INFORMATION FOR SEQ ID NO: 281:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 901 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 281:

CCGGCCACGG TTCCATCCAA CTTACAGGT GTGCACTTGA TTGTGTATGT AATTGTCACT	60
AACGGTAGAA TTTCACCTAT CCCTCCTATC TGCTCGCAGT ACCCGCAGAC TTTCTGAAAG	120
AAGAAGATAA CCTACTTATC CGTTGCTATG ATTATACTAA AGTTTCTACT TTTTTCGAAA	180
TAGATTTTPTA AATTTTGGC TAATGTCTG AATCAGGGTC GGAAGTTTGA CGACCTTGTC	240
ATTGCCTAGT TTTTCGCGTG CAATTTGAG AATGGCACCT GAGTCTTTTG AAGCAAAGAG	300
GAATTTTCCT TTGTCTGTAA AGACTTCGAA GTGGCGGCTG ATTTGCGTC CAGTGACATT	360
GGCTCCAATC TGATTGATAT GGCTCCAAGG AATCTGGATA AATGTTTGA CATGACATC	420
TGGGTAAAAA TCCAAAGCCT GATCTCCGAC AAGGAATTTC CCAACTTTCC CAGCGATAGA	480
GAGGTAGGAA GTGCCTGTCG TACTGAGGAG TACTGTTTGG TTAAGTGATT GGGCCATGCT	540
TAGTCTTCCT TACTTTCTCC AAAAAAGCA TTGTAGAGGG CTTTAATTGC TGCTTTCTCT	600
TGGTCTTTAT TGACAACAAA CATAATAGAA ACTTCACTAG AACCTTGAGA CATCATCTGG	660
ATGTTGATTT TGTTTTCAGA TAGAGCGCGT GTCGCAGTAG CAGTCACTCC GATATGGCTC	720
TTCATTTTTT CACCAACAAT CATAATGATA GAAAGGTCGT GTTCGATTTC TGCATGATCT	780
ACTTTAGCCT TTTGAACCAA CTGACGCAGG ATTTCTTCTT CCTTGATGGG AGTTAGTTGG	840
CGAGAACGGA GAATGATAGA AAGAwCGTCG ATACCTGTTG GCATATGTTT CCAACCGATG	900
T	901

(2) INFORMATION FOR SEQ ID NO: 282:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1765 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 282:

CCCTGTTACG TGGATAATAG GGTAAGACTG CTCAGGATTT CCTAACAAAT CCACCGCTTG	60
CTGCATTCGA CCCAACCTG ATCGAAAATT CAAACCAATC CGACTATGGA GCCATTCTTC	120
TACTTCAAAC ATACACATCT CCTTGACAAA AGTCCAATCA ATTATCGCAT TAAAGTATGG	180
TTACTAATAA AAACAAGGCC AGGATTTTCG TCCCGACCTC TTACCTGGTT AGCTAATAAC	240
TAGCTACTAT GAATGTGAAT ATGGGCTAAA AACATCCACT GGACGTTCCA ACTCTCCCC	300

1312

ATTTCTGGGA GTTGGGGTAA AAATGTTTAC TGGACGTTCC AACTCTTCCC CATTTCTGGG	360
AGTTGGGCTG ATACAGTCTC CCAGACTGTA TCACTCCTCC ATAAAGCTGT TGAAGACTTC	420
TTCAATCATG TTCCATTTCG CTTCTGAGTC TTCTGGGATT GGTGCAATT CGCCTTCTGT	480
TCCATCTTCG TTTTCGATGA ATGAGTAAGC TTGGATTTC AACTGTCCGT CTTCTCTTC	540
TTCTGCGTTA ACTGGTACTA GAAGAACATA GTTTTTACCA AATTCTTCTT TTCCATCAAT	600
TGTCAAAAGG ATTTCAAACA AGGTTTCATT TCCTTGCTCA TCTACTAGTG TGATTAGTTC	660
ACGTTCTTCG TGGTCGTGGT TATGATCGTG TGACATAGCC TCGCCTTTAT ATTAATAATT	720
TCTATCTAAA TAATTTTGTA AAATCAGCTG AGCTGCTAAC TTATCAATGA CTTTCTTGCG	780
CTTATTGCGA CTGATATCTG CTTGTTCAAT CAACATGCGC TCAGCAGCCA CTGTTGTCAA	840
GCGTTCATCC TGATAGTCTA CTGGTAAACC AAAAACTCT TCTAGCTTTG CTCCGTAGCT	900
TGACTAGCTT CTACGCGCGG TCCACTTGTA TTGTTTCATGT TTTTAGGCAA GCCCACTACA	960
AATCGTTCCA CCTTGTAAGT ATCAACCAAT TCCTTAACGC GGTCAAAACC AAATTGGCCT	1020
TGTTCTTCAT TTATCTGGAT GATTTCAAGC CCTTGAGCTG TAAAACCAAG CGGATCGCTA	1080
ATCGCCACCC CTACCGTTTT TGAACGACG TCCAATCCCA TAATCTCAT AGGTTATAGA	1140
TCGACTCCTT GTCCCTTGAG GTAGTAGCGA ACCAATTCCT CAACGATTTC ATCAGCTCA	1200
TACTTACGGA TTTGATTCG TGCATTATTA TAACGAGGAA CGTAGGCAGG GTCTCCACTC	1260
AATACGTAACTACGATTTC GTTAATTCCG TTGTAaCCCT TATCGTTCAA CGAAGCATAA	1320
ACATCTGTCA AAGTTTCGCT AATTTCCTTT TTATTGGAAT CGTCCAATTT AAAACGTACT	1380
GTTTCTTCAG TAAATCCCAT TCTAACACCC TCTTCCTTA GAATAGTACC ATTATAGCAT	1440
AATTCCTTAC CTTCTACAAT TCAGGCAGTC TATTTATTG GATTTTCTAT TGTTCTGTCG	1500
CGCCATTTGC CAATCTATCT GAAATATATT TGCTTGGTTC ATTTTTCAAA AGATTTTCCA	1560
AACCAATATT CTTCAGATGT TCCAACGGG AAGCCTTCTT GACATCCAGA ACTTGAAAT	1620
CAAACTAGT CGTTGTTTGA AGTTCCGTTG CGCTCAATAG TTTTGTTC AAGTTTGAAAC	1680
CTGCCAATTT ACGAGCTTCA ATGATAGACT TATCCTTCTC CTCCGCTTCA AGAAGAGCTT	1740
TTTGAGTTTC CTCCACTCCA TGTTG	1765

(2) INFORMATION FOR SEQ ID NO: 283:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1346 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1313

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 283:

CTTATCCATT CACTTCTTG TCTGTTATTC TATAAATCTT ACTCCTAAGT ATACCACATT	60
TGCCCCTAGA TGTGAACGAG AGAAACGCTC TAGACATTGC CAAGAAGGAA AAAAAAGGGT	120
ACAATGTAAC AAAATCAAGG GAGGTCTGGA ATGAAGAAAC AAAGCAAGTA CAAAGAGGTC	180
GTTTCCTATC TGAAAAATGG TATCGAGTCT GGACGATTTC CGACGGGTAG TCGCCTGCCT	240
TCTATCCGTC AACTGAGCCT TGACTTTCAC TGCAGCAAGG ACACCATTCA ACGAGCCCTG	300
CTGGAATTAC GGCACGAACA ATACCTCTAT GCCAAGCCTC AGAGTGGCTA CTATGTATTA	360
GAACAAGGGC AACATCAAGA CCTAGAAATC GAGGTTACCG ACGAACATGC CAGTGCCTAT	420
GACGATTTC GACTCTGTGT CAATGAAACC TTGATTGGCC GAGAAAACTA CCTCTTCAAC	480
TACTATGACA ATCAAGAAGG ATTAGAAGAC CTAAGACAGT CCATTCACAA ACTCCTCTTT	540
GAGCAAGCTC TCTACTGCAA GGCTAACCAA CTAGTACTGA CTTCTGGAAC CCAACAAGCC	600
TTGTTTATCC TCTCTCAAAT ATCCTTTCCT AGACAAGCCA AGGAAATCTT GGTGGAACAG	660
CCAACTACC ATCGGATGAA TCGCCTCTTG ATTGCACAGG GGCTGGACTA TCAAACGATT	720
GAACGAGGCA TTGATGGGAT TGACTTGGAG GAGCTGGAAG GCCACTTCAA AACAGGAAAA	780
ATTAAGTTT TCTACACCAT TCCCGATT TACTATCCCC TGGGACATTC CTATTCTGAG	840
CAAGACAAAC GATCTATTCT TAACCTAGCT GCCAAGTATG ATGTCTATAT CGTAGAGGAC	900
GATTATCTGG GTGATTGGA CTCCAAGAAG GGCCAAACCT TCCACTATCT TGATACAGAG	960
GAGCGTGTCA TTTATATCAA GTCCTTCTCG ACCAGCCTTT TTCCTGCCCT TCGTATTACA	1020
GCACTCATT TTCCAAATGC TATCAAAGAA GCATTTGTGG CCTACAAAAA TATCCTAGAC	1080
TACGACAGCA ACCTCATTAT GCAAAAGGCC CTGTCACTCT ATATTGACAG TCAATTGTTT	1140
GAAAAAATC GTTGGGCTCG CTTGACCAAT CATGAATCTT ACCAAAAACA AATCGAGGAA	1200
AGGATAACTA AAACACCTTG TCCCCTTCCT CATTATCCC TACACGATGG TTTATTGCTA	1260
GACCTGAGAC AGTATCCTAA AATCGCCAGT CTCAAACACA GTCAACTGGG CTTGGACTTC	1320
TTTGAAGAGG CCTATTTAAG CACCTG	1346

(2) INFORMATION FOR SEQ ID NO: 284:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 900 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1314

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 284:

CTATATTCAG AATATGCCAA AAATTCGGAA TGGTATAAAT TTGCGGAGGG TTCATTTGAC	60
ATATTTAGAA AACTCCCCCA AAGAATTAAT TTTAAGAAAG ATTTTCTAG AATTTTGGCC	120
CCCTTTATTA TTAATTTGCT TAAATTAATC AATAATTATC TAGAGAATAA AGAATACGAG	180
TGGATTGACA AGAATGGAAA TATTTTTC TCTCTAGTAT TTTATTTAGA AGATTTAATC	240
TATCCTTGGA TTGTAAACC TTTGGTTTA GAGATAAAT CATTCGCTGA AAAAGGTTA	300
CTTGAAGGGG AATCGGAGCA GCAACGGTAC AAATATTTTA TAACATTGTT TGACAAGGAA	360
GAGAATATAT TAAATTTTTA TAACAAATAT CCCGTTTAC TGAGGCAAAT ATCGGAGTCT	420
TGTCCTCGGT TCTATACCTA TTTTATAGAA ATTTTATCAA ATTTAGAAAA TGATTTTAGT	480
GTGCTAGAAG AAGAATTAGG GCTAAGGGGG AAATTAAATG ATATAAAATT TGGAAAGGCT	540
GATACACACA GCCAAGGAAA AACTGTTTGT ATACTCTTCT TTGATGACGC GAAAATTGTT	600
TACAAGCCTA AAAATTTAAT AATCAATAAC TCACTAAATA CTATTGCTGA GTATATCCGA	660
AAGGTTGATG AAAAATTAG GATAAGAATA CCTCGAATA TTGCTTATTC GGATCACAGC	720
TATGAAGAAT TTATTGATTA TCTACCTCTA GAGCAAAAGA AAAATTTACC TGAATATTAT	780
TATAATTTTG GTGTGCTTTT AGCATTTATA TATTTATTTA ATGGGAGTGA TATACATTTT	840
GAAAATTTAA TTTCCTATGG AGATATGCCT GTAATAATAG ACTTTGAAAC AATGTTACGG	900

(2) INFORMATION FOR SEQ ID NO: 285:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 862 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 285:

TTATTTAGCA GAGGCAGTTT TAAATGTGAA GGATTGGTTC AGTCAAACAG TTTTATCA	60
GCAGATTATT GGTTTAGAAA TCCTATCTCA AACGGATACA GAGGTCGTTC TGGGACTTGG	120
AGGAAAAGCC TTGGTACACT TGATTCAAGC ACAAGAGGGT GGAGAAGTAA GGGAACATTA	180
TGGTCTTTAC CATCTGGCTA TTCTTTTGCC GACACGAAAG GCTTTGGCGG ATGTCTTGAA	240
GCACCTGACG GATTACAGA TTCCTCTTGT TGGCGGTGCA GATCACGTTT ACAGTGAGGC	300
CCTTTACTTA GAGGACTTGG AGGGAAATGG CATTTGAATC TATCGAGATA AGCCAGTTTC	360
CACATGGGAT ATTGAGAAG ATGGACGTAT TATCGGGGTG ACTGAAGTCC TTGCGGCTCA	420
GGATATCTAT GAGTTGGGGG AAAGAGTAGA GCCTTTTATC CTAGCAGAGG GTACGAGAAT	480

1315

GGGGCATATT CATCTTCTG TCAAGGATAG TCGAAAGTCC AGACAGTTTT ATCAAACGGT	540
GTTAGGGCTC GAGGATAAAT TCAGTGTGCC TAGTGCTAGT TGGATCGCAG CTGGGGACTA	600
CCATCATCAT TTAGCAGTCA ACGAATGGGG AGGAAAAGGT CTGGATCCGC GTAAACAAGT	660
CCTACCAGGT TTAGCCTACT ATGTCATCGA AGTCGCACAT AAAGAAGAAC TGTTAACGAT	720
TGCCCCAACGA GCACAAGAAG TTGACGCACC AATCAAATGG ATGACATCGA TCCAATTGGA	780
AATCACAGAC TCAGATGGCA TCGTGACCCG TATTCGTTTA GCTAGATAGA TGGTATGTGA	840
TGAAGGTAGA GCATCAATTG TA	862

(2) INFORMATION FOR SEQ ID NO: 286:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 650 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 286:

TCGTTTACAA GATCGCTAAA ATGCATCTCA TGATCGCGAC CACGAATCC AAGATAGCAC	60
GCGCTACCTC AATCATAGAT AGTTCACTTT TTTCTTGCCC AGCAAATACT TCTAATTCCA	120
AAGCGTTTCT CCTCATTTAT ACTACTATCG CCAGAGCGAA CAGACTCTGA CCTCATTTTA	180
TCATTTACTC TTTATTTTAC GATAATTTTG CGGAATAGTC AAAGGTTAAG GGGGAGAAAG	240
TGGCAGGATT AGACTAATTC CAATATAAAA CTCATTCCTT TTTCTGTTGC TCCATTTTCC	300
ACAAATCCAA GCGACTTGAA ACACCTCCTA GAAGCATGAT TGTAGGTGTA GATTTTCTTG	360
ACTCTCAATT CTTTCCATCC TTTTACTCGA GCCAATTCAA TCAAAGCACT TAGAATCTTT	420
TTTCCAAGTC CTCGATGTTG GTAAGCGGAA TTCCCAATCA CAATGGGGAG ATTATCCTGA	480
GATAGTGTA TATCCCCAAT TGGAAACCAT TCTCCCTTCT CCTTGACTTC AATCCAAAAA	540
AGCTCACCAT GCCGATyCAr ATAGGAATAC ATGGCTTCCA AGGTCGcTtG ACTGTAAGGA	600
AGCTTCACCC CATCTACGAG GtAAcCAAGT TCACATCCGT GATACCAAGC	650

(2) INFORMATION FOR SEQ ID NO: 287:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1119 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1316

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 287:

GATAGCAATC CGCTTCAGAA ACTTCTCGCT TACCTCTAAC TCCGATCGCT AGTTTGGGAG	60
AAGATACTTC CATCTCATA CTATCTGTTG GCTTTGCAGG CTGTAAAAAC AACTTTTCTC	120
TTGCTACTTC CTGAAAATCT GAATCTTGCA GTTCTTTGCT TTCAAAATAG TCCTGTACTC	180
GCTCCACATC AAAATTCCCA GCTAAAGACA GAGACATGTT TACAGGTTTG TAAAACTTTG	240
TAAAATTTTC TTGCAAATTA GTTAGATTGA TTTGGGAAAT GGACTCCTCA CTTCCAAC TA	300
TATCAGTTGC TAAAGGTGTA CCAGGATACA AATTCGCTAA AGTTGAAAAG AATAACACG	360
AATCTGGATC ATCTGGTAC ATTTCTCGTT CTTGCTGAAT AATATCCTGC TCTGTCAGAA	420
TGGAAGCTTC AGTAAAGTGT GCTGATGTTA CCAATTCATC AAGTAAATCT AAATTTTCTA	480
AAAAATAATC CGTGTCTGAA AAAAGATAGT TTGTTTGTGT AAAGCTTGTA AAGGCATTAC	540
TATCTGCACC TAGACTCGTA AAAGCCGACA TCAAATCACT AGAATCTTCT CTCTCAAATA	600
ATTTATGTTT AAGAAAATGA GCAATTCCTC CAGGATATTG TTTTACATCT CCGTCAACTT	660
CTGTGACAAA CGTATCTACC GAACCAAAC GTACAGTGAC ACTCCCGTAA ACCTCTTTAA	720
ATTCTTTTTT AGGCAAAAGA GCAACTGTCA ATCCGTTGGC CAAACGAGTT CGATAAACCA	780
TTTCTTTTAC AGCTGGATAG TATTTTCTT CAAAACAAC CTTTGTCAAT CTATTCCTTC	840
CATAAAGTAA ATCGCTTGTA GTTTCACATT ATTAGCTACT CTACAAATAG CATCTTGTG	900
AATTTGTTC AAGCTTTGCAA TCCAACCTTTT AAAGTCTGCT GAAGATTTTC CAAATAAGGC	960
ATTTTGATAA GCACGTTCAA TCAATGAAGA ATGATTATCT TGAGAAAGTA ACAACGACCA	1020
ACGAATCATT TCCTTGGTCT GATTTAACTC AACTCTGTA AAAAAACCTT TTTTAAATC	1080
AAGCCGTTGA TTATTCATCA ATTTACGAGC CTGGTTACG	1119

(2) INFORMATION FOR SEQ ID NO: 288:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 540 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 288:

ACGCCCTCGC GGGGACATGA CGAATTCCTC GTTCATCACG AAGGCCGCCG AGGAGTGGGG	60
GGTGCCGTCC AAGTCAAAG CGGCCCCACA TCGATTCACT TCCCCGACGA ACAGCCCTTT	120
CCCCAGCGT TCCTGGCTTT GCAACCGTTT CACAACAGCC TCGTAAAGTA GGCCGGACAA	180
GGCAGACGGA CTCCAAAGGA GTTCTTCCAT CTGCAAGTGC GCCTGCGTTA TGTGATCCCG	240

1317

GTCTTTTGCA TGTGTGTGGC ATGAATGCTG TTCCCAATCC CACTCCAGAA CATTCTCCTC	300
AAAAGTGCGC AACGTCGCCC TGAATGAATC CTGCCTTGTA GTCGTGACCA TTCCTATGAA	360
GGGTCGCAGA GGATTTTCCC CGAGTGCAAG CGCATCCTCC GGCTCAAATC GGGTGCAATT	420
CACAGTCCCG CTCAACGCTA GCCCGATCCC TTTTGGCAT GGTGACTCAA GCGTCCTTTC	480
AAACAAAAGC TCCTCATCCG CTCCAACCGG CCCGACGTAG ACGCGTAGAC CGAAGTCGTC	540

(2) INFORMATION FOR SEQ ID NO: 289:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1949 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 289:

AAAGAATTCG ACCAATTCAA GGTGAGGCA TCGCAAATA TGGACTGTTC CCCCCTCAGT	60
TCTGGACAGA AAACGGGATA AGGTTGGCTG TGAAGCAAGC TGCCCTCCTA CCAACAATTT	120
TGGAAGTAG GCATCAGCTG ACAATTCTTT ACAAGCATAG TCCGTTCCAT AACCTGTAA	180
CAGTTGAAAG AGGAACTGGA CAAGGATATC TGAATCCGAA TAACGACAGT AGCGGCGTTG	240
GTCATTCGTT ACTAAATACT TAGAAATCCG CTCTTTTAGT TTCAACTGGG AAAAAAGTTC	300
CTGAAAAAG ATAAGACCAC CATACTGGGT TAAATGACCT CCATCGAAAG ATAGTTGGTA	360
AAAAGACTTG TTTTGGAGT GATGATTGG TAACTGTTC ATGTGAGTTT CCTTCTTTT	420
TGTGTTTTTT TCTACACTTA TACCATAAAG GGGAACTCT TTTTGTCTA GTAAAAAACA	480
CCCATGGGT GAAAAAGAA ACCATCCAGG ATCTAAGCTA AGGCAAGGAT TCTGGATGGT	540
TTTGTAGTTT GGGGTGAATA ATTGGGGTTT TACAATATCA ACTCCCATGA TAGTCATGAG	600
ATGACTCTTC ACGAATTGAC GTGATGACTG TCCTTCCTTT TGCATAATTA CCTCCGAAAC	660
ACAAAAAAG GGGTAGACAA TCTAGTGTCT ACCCCCGAAA GTTTATTAAA AAAAAATCC	720
TGCCAAAGAA TTTTGGCAG GAAACCAAT CAATTATCA GTTCTATCA ATCGCTTATC	780
GCTCTCAAAG ACTGGTAAAT AGGGATCCG CAATCAAAT GCGATACTCT ATTATTTAAG	840
AGTAACTGAA GCTCCAGCTT CTCCAATT AGCTTTGATT TCTTCAGCTT CTGCAGTTGC	900
AACGCCTTCT TTAACAAGTG CTGGTGACC GTCAACAAGT TCTTTAGCTT CTTAAGACC	960
AAGACCAGTG ATTTACGTA CAACTTTGAT AACGCCAACT TTTTGTGCG CTGCAGATGT	1020
CAATTCACG TCGAATGAAT CTTAGCAGC ACCAGCATCA GCTGCATCAG CTGCAGCAAC	1080

1318

AGCTACAGGA GCAGCTGCAG TTACACCAA TTCTTCTTCG ATAGCTTTTA CAAGGTCGTT	1140
CAATTCAAGG ATTGAAGCTT CTTTAATTTC AGCAATAATG TTTTCAATGT TCAATGCCAT	1200
TGTTATTTC TCCAAATAAG TTTTAAATTT TATAATAGTT TTTTTCGTAG CTAGksTACG	1260
CTGTGTAGCT TAAGATTAAG CCGCGTCTTC TTTGCTTTCT GCAACCGCTT TGACTGCAAG	1320
AGCAACGTTG CGCACTGGCG CTTGAAGTAC AGAAAGGAGC ATAGAAAGAA GTCCTTCGCG	1380
GTTTGGAAGA GTTGCAAGTG CAAGAATCTC TTCTTTAGAT GCGACAGCGC CTTGCAATTGC	1440
ACCACCTTTA ATTTCAAGTG CTTGAGCGTT TTTAGAAAAG TCGTTCAAGA TTTTCGCTGG	1500
TGCGATAACA TCTTCATTAG AAAATGCTAC TGCAGATGGT CCAACAAATA CAGATGCAAG	1560
ATCTTCAAGA CCAGCTTTTT CAGCTGCACG ACGCAAGATT GAGTTTTTAA TAACTTTATA	1620
CTCAACTTCG CTTCACGAA GCTCAGCAGC AAGAACTGTA TCTTGCTCAA CTGTCAAACC	1680
ACGAGCGTCT ACAACGACGA TAGATGCAGC AGCTTTCATT TTTTCAGCTA TACGTCAACT	1740
AGTTCGCTT TTTTAGCAAT AATTGCTTCA CTCATTAGTG TGTTACCTC CGTAATTATT	1800
TTGCTTGGGG AATTTTTTCAA AAAGAAAAAC GCGCCCAATC CTAGACACGA AAGTACAATA	1860
CGCTTCTTTT TACATGATAC GTTTTGTCTT CCGTAGGATA TTTATGAGTC GAGCTCCCCT	1920
ACTGTCCTAG GCAGTTTTTT TAGATACGG	1949

(2) INFORMATION FOR SEQ ID NO: 290:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1023 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 290:

GGACTGTTTG ATCTTATACA GTAGCTGCTT GATCCAAGCT TTCACCGATA GCGGCTAGGC	60
GCTCGATAAC TTCAGCTTGT GTCAATTCAT TTTTGAAC ATAGCGGTTA CGTGGGTGAA	120
CACGGCACTC GTGTGAGCAT CCACGAAGGT ACTTGTCTTC ATTTTCTTCT GATGTCAAGA	180
TACGACGGTT ACAGAATGGA TTTCCACAGT TGACATAACG TTCACATGGT GTTCCATCAA	240
ACCAGTCTTT CCTTACGATA GTTGGGTGA CATGGTTGAC ATCAACGGCA ATACGCTCGT	300
CAAAGACGTA CATTTTCCCA TCCCAAAGCT CACCTTGAAC TTCTGGGTCT TTACCGTAAG	360
TGCGGATTCC TCCGTGCAAT TGGCCGACAT CTTGTAGCC TTCACGGACC ATCCAGCCTG	420
AGAATTTCTC ACAGCGAACG CCACCTGTAC AGTAAACCAC GACACGCTTG TCCATGAATT	480
TTTCCTTGTT ATCACGGACC CATTGTGGTA ACTCACGGAA GTTGCGAATA TCTGGGCGAA	540

1319

TAGCTCCACG GAAATGTCCT AGGTCGTA CTATAATCGTT ACGTGTGTCA AGGACAACGG 600
TATCTTTATC AAGAAGCGCT TCTTTGAACT CTTTGGAGA CAAGTAAGCA CCTGTTGTTT 660
CAAGTGGGTT GATGTCATTG TCAAAGTCGT TGTCTTCCAA ACCAAGGTGG ACAATTTCTT 720
TCTGTAGCG AACAAACATC TTCTTGAAGG CTTGTTTCATT TTCTTCGTCA ATCTTGAACC 780
AGAGTTCCTC CATTCTGGA AGGCTGTGAA CGTAGTCCAT GTATTTTGA GTTGTTTCAT 840
AGTCACCTGA AACTGTTCCG TTAATTCCT CGTCAGCGAC TAGGATACGG CCTTTAAGGn 900
CGATTGATTT ACAGAAAGCC AAGTGGTCTG CAGCAAATTG CTCTGCATTT TCAATTGGAG 960
TATAAAGGTA GTAAAGTAAG ACACGAATAT CTTTGTkCaw AAGATTGTA TCTCTTTATC 1020
TAT 1023

(2) INFORMATION FOR SEQ ID NO: 291:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3831 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 291:

ACTATGAACA AGACCCAGAA AAAGTAGCCT TATTCTTAA GAATTTTAAAT AGTTTAAAGC 60
ACCTAGCACC TGTTTAGATT GACGAAACAG GATTCGATAC TTATTTTAT CGAGAATATG 120
GTCGCTCATT AAAAGGTCAA TTAATAAGAG GCAAAGTATC TGGAAGAAGA TATCAGAGGA 180
TTTCTTTGGT TGCAGGTCTA ACAAATGGTG AATTAATCGC TCCAATGACT TACGAAGAGA 240
CGATGACGAG CGACTTTTTT GAAGCTTGGT TTCAGAATTT TCTCTTACCA ACATTAAACA 300
CACCATCGGT TATTATTATG GATAATGTAA GATTCCATAG AATGGGGAAG CTAGAACTTT 360
TATGCCAAGA GTTTGGGCAT AAACCTTTAC CTCTTCCTCC CTACTCGCCT GAGTACAATC 420
CTATTGAGAA AACATGGGCT CATATCAAAA AGCACCTCAA AAAGGTATTA CCAAGTTGCA 480
ATACCTTTTA CGAGGCTTTT TTATCCTGCT CTTGTTTCAA TTGACTATAT TAGAGGCGAG 540
ACATTTTTCG GTTCTTTGTC AACTGTAGTG GGTGAAGAA AGCGAAGATC TAGAAAGGAC 600
AAATTTCTGC CTTTCTTTT TGAAGTTTC AAAGTTCCTA AAACCAAAGG CATTGTGCTT 660
GATAAGTTG ATGAGATTAT TGGTGGCTTC CAGTTGGCG TTGGAATAAG GTAATTGAAG 720
GGCGTTGACG ATTTCTCTT TATCTTTGAG GAAGTTTAA AACAAAGTCT GAAACAGAGG 780
TGGAAAAGCA AGAGCTGATA GAGATTATAG TGGTGTTTAA AGTCTTCGGA ATAGCTCAAA 840

1320
AGTTTATCTA GAATTCTTTT ATTAGTCAAG TGCATACGAA AAGTAGGGCG ATAAAAATCGT 900
TTATCACTCA GTTCTGACT ATCTTGTTGA ATGAGCTTCC AGTAGCGCTT GATAGCCTTG 960
TATTCATGGG ATTTCGGATG ATGGCTTGTG TTCTGCTCTC AAGAACAGTT ATGATATTGA 1020
GTTTATCAAA GTCCTGAGCA ATAAAGCTCA TCTCCATCTC CCGATTGAAA CAGTCACTCC 1080
CCGGACTGTT TCAACsTCCT AGGACATAAT CTCAGGAAGA CGCGAAAAAT CATGCTCAAA 1140
GTGAAAATCA TTGTTCTTGC GAATGACAGT TGAAGTTGAA ATAGACAACCT GATGATCAAT 1200
GTCGGTCATA GAAGTCTTTT TAATTAGCTT CTGAGCAATC TTTTGTTGA TGATACAAGG 1260
AATTGATGA TTCTTCTTGA CGATAGAAGT CTCAGCGAGC TCCATTTTGT AGCAATGATA 1320
GCACTTAAAA CGGCCTTTTC TAAGAAGAAT TCTAGTTTGA ATTTTTTTAT ACTAGAAAAAT 1380
CAGAACCATA ATACCTATAT AAAAATATTA TAGTTCTAAT AGGATTTACC CAAAAGTTTT 1440
AAGCGGTCT TTTTAGAAGT TTAATTGTTT GAAATTTAGG TAGCAAATTT GTTCTATTTT 1500
TGTCAACTTT TCCTATTTTT ATCTTGTTGA GGCTGGTATT TTAACAATTC AGGAATTGAT 1560
AGTGAATGTG TAAAATTTTT TGTTAGAATA AGTTTATAAA AAAGAAAAGG AGTATTGAT 1620
TATGTTACAA AAAATTTATG AGCAGATGGC TAATTTCTAT GATAGTATTG AAGAAGACTA 1680
TGGTCCACATA TTTGGTGATA ATTTGACTG GGAACATGTT CATTTTAAAT TTTAATTTA 1740
TTATTTAGTG AGATATGGCA TTGGTTGTCG TAAGGATTTT ATTGTTTACC ATTATCGTGT 1800
TGCTTATCGT TTGTATCTTG AAAAATTTGCT AATGAATCGG GGTTTTATTT CTGTTGAGG 1860
TAATTTTAGT AAATTTCCGA ACTAATTTAC TCTTTTATGG AAAGATGATA GTAAATAGCT 1920
AGTAATTTTT CTAAATCATT TTTTAATAGT TGGAAATAGC AAATCTTTCT ATTGTTTCTT 1980
CTTGATAAAA AGGCGATTTT TTATTATAAT AAATTGTAAG ATATAATTGC AGGTGAGAGT 2040
CCTGCCATGT ATGTGAGAAA GGAAGAGCCT GATGGCTCAG ACAAGATTAT GACTTCAGTT 2100
GTGTTGTAG GTACCCAATG GGGTGATGAA GTAAAGGGA AGATTACAGA CTTCTTTTCA 2160
GCGAATGCAG AAGTGATTGC ACGTTACCAA GGTGGTGATA ATGCTGGTCA CACGATTGTG 2220
ATTGACGGTA AGAAATTTAA GTTGCACTTG ATTCATCTG GGATTTTCTT CCCTGAAAAA 2280
ATATCTGTCA TTGGGAATGG TATGGTTGTA AATCCTAAAT CTCTGTGAAA AGAGTTGAGC 2340
TATCTTCATG AGGAAGGTGT AACAACGTAT AACTTGCGTA TTTCTGATCG TGCGCATGTT 2400
ATTTGCCTT ATCATATCGA GTTGGATCGC TTGCAAGAAG AAGCTAAGGG CGACAATAAG 2460
ATTGGTACGA CAATTAAGGG AATTGGTCCA GCTTATATGG ACAAGGCTGC TCGTGTGGA 2520
ATTCGTATTG CAGATCTTTT AGATAAAGAT ATTTCCGTG AGCGTTTGA ACGTAACCTT 2580
GCTGAAAAGA ATCGTCTTTT TGAAAAATG TATGACAGTA AAGCGATTGT TTTCCATGAT 2640

1321

ATTTTGAAG AATATTACGA ATATGGTCAA CAAATCAAGA AATACGTGAT AGATACATCT 2700
GTTATCTTGA ATGATGCGCT TGATAATGGC AAACGTGTGC TTTTGAAGG TGCACAAGGT 2760
GTTATGCTAG ATATCGACCA AGGTACTTAT CCATTGTGTA CGTCATCAAA CCCTGTAGCT 2820
GGTGGGTGTA CAATTGGTTC TGGTGTGGT CCAAGCAAGA TTGACAAGGT TGTAGGTGTA 2880
TGTAAGCTT ATACGAGTCG TGTAGGAGAT GGTCTTTCC CAACTGAGTT GTTTGATGAA 2940
GTGGGAGAAC GTATCCGTGA AGTGGGTCAT GAATATGGTA CAACAACTGG TCGTCCACGT 3000
CGTGTAGGTT GGTGTGACTC AGTTGTGATG CGTCATAGCC GTCGTGTTTC TGGTATTACT 3060
AACCTTCTT TGAACCTCTAT TGATGTTTG AGCGGTTTG ATACTGTGAA AATCTGTGTG 3120
GCCTATGATC TTGACGGTCA ACGTATTGAC TACTATCCAG CTAGTCTTGA ACAATTGAAA 3180
CGTTGCAAGC CTATCTATGA AGAGTTGCCA GGTGGTCAG AAGATATTAC CGGAGTTCGC 3240
AATTGGAAG ATCTTCCTGA GAATGCGCGT AACTATGTTC GTCGTGTGAG TGAATTGGTT 3300
GGCGTTCGTA TTTCTACTTT CTCAGTAGGT CCTGGTCGTG AACAAACAAA TATTTAGAA 3360
AGTGTGTTGGT CCTAAGAGAT TTTTAAGATT TGTTTAAGAT AGGTCGGGTA TACTATAGAC 3420
GGTTACAAGA AGACCTCCTA ACTTGTGTA ACAAATATCC TAAACTTTTC TTTTTCATAA 3480
TAATCTCCCT ATAGAGTCAC CGCATTCCGT GGCTTTTTT GTGTTGGGAT TCATGATATA 3540
ATAATAAAT CGATAAGTAG GAAAGAGAA AAGAGATGTA TTATACGCTT GAAGAAAAAG 3600
AAGTCTTTAT GAGGGAGGCT TTGAGAGAG CTGAGATTGC TCTGAACAC GATGAAATTC 3660
CAATTGGTTG TGTGATTGTC AAAGATGGG AAATCATGG TCGTGGGCAT AATGCGCGTG 3720
AGGAATTACA GCGAGCGGT ATGCATGCGG AAATTATGGC TATAGAGGAT GCGAACTTGA 3780
GTGAGGAGAG TCGCCTTGCT GGATTGCACA CTTTTGTGA CCATTGAACC G 3831

(2) INFORMATION FOR SEQ ID NO: 292:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1441 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 292:

CCGCTGTTCC AACCGCAACA TACCATAGTC CGTACGGGAT TCGAACCCGT GTTACCGCCG 60
TGAAAAGGCG GATGACTTAA CCCCTTGACC AACGGACCTG AGTTGTTATT TTCAACTCTT 120
ACTATTATAC AGTCTTTTCA AACTTTGTCA ACTACTTTTT CTAATTTTGG TTTATTTTTT 180

1322

CAACTTATAG TAAAAAAGC CAGAATTATA CTGACTCTTC TATCGCTCAT TAACTTAGA	240
AGCACGTTCT TTTCCCCACC AATAAGGGAT TAGTTCTGCG ACTTTAACTG TTTTCTTAT	300
ATTATAGTCC ATCATGAATT CTGCATCTTT ATTTTCAGCA TTAAGCTCTA AAAGGAATTC	360
TCTACAAGCA CCGCAAGGCA TGGCTGAACT TCCACCATAA GGTGGTTTGT CTCGAAAGGC	420
TAATACTTTC TTAACCTTAG TTTGTCCTGA AAATGGTAC ATATTGAAGA GGGCCGCCCG	480
TTCTGCGCAG AGATGGAAA CACCACAGGT TCCCTCCATA CAGAATCCCTG TAAATATTTG	540
TCCATCTCCT GCTTCTACTG CAGCTACAAC ATGATTGGCA TAAACAAAGT CTGATACTTC	600
ATGTGGATTG TATAGTTTCT GTGCTTCTTC GTACATCTTT TCCCAGATGT CCATTATTGT	660
ATCTCTTTA TTTAGAGATT TCTTTTAGCA TGTTTTCGAT ATGCTGAATT GATTTTTCAC	720
GTCCAAGCAA GAAAATTGTA TCTGGTAATT CTGGCCCATG CATTCGCCT GAAACTGCGA	780
TACGAATAGG CATGAAAGA TTTTCCCTT TAATACCTGT TTCTTTTGG ACTGCTTTAA	840
TTTGTGGGAA GATATTTTCT GTCACAAAT CATCATCTGT CATCGCTTCA AGTTTGTCTT	900
TGAATGCTTC AAGAACTGTT GGAAGTGTTC CACCCGTCAT GACTTCGCGC TCTGCTTCTG	960
TCAATTCTGG GAAATCTGAG AAGAAAAGAT CTGTCAATGG GATAATCTCA TCTACTGATT	1020
TCATTTGTGG TTTATAGAGC TCAACTAATT TTTCAGCCTT GTCAGTCAA CGGCCTGCTT	1080
CCTCTAAGAA TGGTTTTGCC ATTTCAAAGA TGGTTTCAAG GTCTGCATTG TTGATATAAT	1140
CATTGCTCAT CCAGTCTAGT TTTTCTGAT CAAAGGCTGC TGGTGACTTG CTGAAGCGGT	1200
TTTCATCAA AAGTTTAATG AATCTTTCAC GAGAGAAAAT CTCATCCCCA CCACCTGGGT	1260
TCCAACCAAG AAGAGCAATA AAGTTAAAGA CTGCTTCTGG AAGGTAACCT TTCTTTCGGT	1320
AATCTTCGAT AAATTGAAGT GTATTAGTAT CACGTTTGA TAACTTCTTA CCAGTTTCAG	1380
AGTTGATAAT CAAGTGTCTG GTGACCGAAC TCTGGAGCTT CCTCAACCTA AGAGCGGGTA	1440
T	1441

(2) INFORMATION FOR SEQ ID NO: 293:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4398 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 293:

CGGCTTATGT AGTGGCAATC TTTCTACGTA AGCGAAACGA GGGGAGATTA GAGGCGCTAG	60
AAGAAAAAAA AGAAGAACTA TACAATCTTC CAGTAAATGA TGAAGTAGAA GCTGTAAAAA	120

1323

ATATGCACTT GATTGGACAA AGTCAAGTGG CTTTCCGTGA ATGGAATCAA AAATGGGTCG	180
ATTTATCTCT CAACTCTTTT GCCGATATTG AAAATAATCT CTTTGAAGCA GAAGGCTATA	240
ACCATTTCATT TCGTTTTCTC AAGGCCAGTC ATCAAATTGA CCAAATTGAG AGTCAAATTA	300
CTTTGATGTA AGAAGATATT GCGGCAATTC GCAATGCTTT GGCAGACTTA GAGAAGCAAG	360
AATCTAAAAA TAGTGGTCGT GTTCTTCATG CTTTGGATTT ATTTGAGGAA CTTCAGCATA	420
GAGTTGCTGA AAATTCAGAA CAGTATGGTC AAGCCTTGGA TGAAATTGAA AAACAATTAG	480
AAAAATATCCA ATCTGAATTT TCACAATTTG TAACCTTGAA TTCATCGGGT GACCCGTGTTG	540
AAGCCGCAGT GATTTTGGAT AATACAGAAA ATCACATTTT GGCCTTAAGT CATATTGTGG	600
ATCGTGTTCC AGCCTTGGTT ACGACGCTTT CTACAGAATT GCCAGATCAA TTACAGGATT	660
TGGAAGCCGG TTATCGTAAA CTAATTGATG CTAATTATCA TTTTGTGAA ACGGATATTG	720
AAGCGCGTTT CCACTTGCTT TATGAAGCAT TCAAGAAAAA CCAAGAGAAT ATTCGTCAGT	780
TGGAATTGGA TAATGCCGAA TATGAGAATG GACAGGCACA AGAGGAAATC AATGCCTTGT	840
ATGATATTTT TACTCGAGAA ATTGCTGCTC AGAAAGTAGT GGAAATCTA CTGCAACTC	900
TTCCAACCTA TCTTCAACAT ATGAAAGAGA ATAATACTTT ATTTGGAGAA GATATTGCAC	960
GTTTGAACAA GACCTATTTA CTTCTGAGA CAGCTGCAAG CCATGTTCTG CGTATTCAGA	1020
CAGAATTAGA GAGTTTGTAG GCAGCTATTG TTGAGGTAAC TTCAAATCAA GAAGAACCAA	1080
CCCAAGCTTA TTCAGTCTT GAAGAAAATC TTGAGGATTT ACAAACCTCAA CTAAAAGATA	1140
TTGAAGATGA GCAAATTTCA GTTAGTGAGC GCCTGACACA AATTGAGAAA GATGATATTA	1200
ATGCACGTCA AAAGGCCAAT GTTTATGTCA ATCGTCTCCA TACTATCAAG CGATACATGG	1260
AAAAACGCAA TCTGCCAGGT ATTCCACAAA CTTTCTTGAA GTTATTCTTT ACGGCAAGCA	1320
ATAATACCGA GGATTTAATG GTTGAGTTAG AACAAAAAT GATTAACTT GAATCTGTTA	1380
CCCGAGTTCT TGAAATTGCA ACGAATGATA TGGAAGCTTT AGAAACGGAA ACTTATAATA	1440
TTGTACAATA TGCAACTTTG ACAGAGCAAC TCTTGCAATA TTCTAACCGC TATCGCTCAT	1500
TTGATGAACG CATTCAAGAA GCATTTAACG AAGCTTTAGA TATTTTGA AAAGAATTG	1560
ATTATCACGC TTCATTTGAC AAGATTTCTC AAGCATTGGA AGTGGCAGAG CCTGGTGTA	1620
CCAATCGCTT TGTACCTCA TATGAGAAAA CACGTGAAAC GATTCGTTTT TAATAAAGA	1680
AAAAGATTTT ATTGTGTGAG GAGCAGAATC AAATCTTTTT CTATAGTTGT GGGGAGATTT	1740
ACTTCATTTT CTCCTGAGAT TGAGTTTTTG CCCAGCCGAT TTATCCACTA CCTCAAAACA	1800
GTGTTTTATA CTCTCGAAA ATCTTTTCAA ATCAGCTCAG CGTCGCCTTA CCGTACTCAA	1860

1324

GTACAGCCTG AGGCTAGCTT CTTAGTTGTC TTTTGTGATT TCATTTAGTA TTAAAGTGAT	1920
TTCCGCCAGTC TTATCTGCAG CTTCAAATCT GTACTTTGAG TAACTTGGTA ACCGTCCAAT	1980
AACGAAGTCT ATTGAAAAAT CTCCAGACTA GAGAAGTAC GGATAGTTCC TAATCTGGAG	2040
ATTTCTTATT TGCACTTTTC TTGTACAAC TTAGTCCACG GTAAATAGAC CTCTAAAACC	2100
TCTTTGTTTA CGAGAGTTTC CTCGTTTGA AGACATTCTA GAAGATAGGA TAGATATTTT	2160
TCGCTATTTA TACTAGACTA AAATCAAAAA GCATTATATA ATAGTGATAT GAAATCAACT	2220
AAAGAAGAAA TCCAAACCAT CAAAACACTT TTTAAAGACT CTCGTACAGC TAAATATCAT	2280
AAACGCCTTC AAATCGTTCT ATAGTAAAT GAAATAAGAA CAGTACAAAT CGATCAGGAC	2340
AGTCAAATTG ATTTCTAACA ATGTTTGA AGTAGAGGTG TACTATTCTA GTTTCATCT	2400
ATTATATTTT GTCTGATGGG CAAATCTTAT AAAGAGATTA TAGAACTTTT ATAGTAGATT	2460
GAAATAAGAT GTGAACAACT CTATCAGGAA AGTCAAATTA ATTTATAGAA ATATTTTAGC	2520
AGCCAAGGTG TACTGTTATA GATTCAATAC ACTATAGACT GTAATCAAAC AACGATTTGG	2580
CGAAATGTAA AAAAATATGA GGAGTTCGGA CTCGACTCTC TCCTTCAAGA AACACGTGGT	2640
GGTCGTAACC ATGCATATAT GACAGTTGAG GAAAAGAAAG TCTTTCTTGC CCGCCATTTG	2700
AAGGCTGCAG AGGCAGGAGA ATTTGTTACA ATTGATGCCT TATTTAGGC TTATAAAAAG	2760
GAGTTAGGTC GTTCCTACAC ACGTGATGCC TTCTATCAAC TGTGAAGTG CCATGGTTGG	2820
CGAAATATTA TCCCACCTCC AGAACATCCT AAGAAAGCAG ACGCTCAAAC CATTGTCGCG	2880
TCTAAAAATA AAATCTCAAT TCAAGAAGAA AAGAAAGCGC TTTAAACCA GTAGACGTTT	2940
TCGTAAGGTT CGCTTGATGT ACCAAGATGA GGCTGGTTTC GGTAGAATCA GTAAACTGGG	3000
ATCTTGTTGG GCTCCAATAG GAGTAGGTCC ACATATCCAT AGTCACTATA TACGAGAATT	3060
TCGCTATTGT TATGGAGCTG TTGATGCCCA TACAGGCGAA TCATTTTCT TAATAGCTGG	3120
TAGATGTAAT ACTGAGTGA TGAACGCCTT TTTAGAAGAG CTTTCACAAG CTTATCCAGA	3180
TGATTATCTT TTAATCGTTA TGGACAATGC TATATGGCAT AAATCAAGTA CCTTAAAGAT	3240
TCCGACTAAT ATTGGTTTTC CTTTATTCC TCCATACACA CCAGAGATGA ACCCCATTGA	3300
ACAAGTGTGG AAAGAGATTC GTAAACGTGG ATTTAAGAAT AAAGCCTTTC AAACCTTGGG	3360
AGATGTCATG AATCAACTCC AAGATGTTAT ACAAGGATTG GAGAAGGAGG TGATAAAGTC	3420
CATCGTTAAT CGGAGATGGA CTAGAATGCT TTTTGAAAAC AGATGAGTAT AAAAAGAAAAG	3480
TCCTCATTTT AATAGAAATC ACGACTTTCT GATGGATTTA TAGTAAAATG AAATAAGAAC	3540
AGGACAAATC GATCAGGACA GTCAAATCGA TTTCTAACAA TGTTTATAGAA GCAGAGGTGT	3600
ACTATTCTAG TTTCAATCTA CTATATTTT GGAGTGATAG AAAAGCCCTT CATAAGCTAG	3660

1325

TCTACTTGTT CAGGTGCGAG AGCTTTGACA TCTTTTCTG TACTTAGCCA AGTCAGTTTT	3720
CCGTTCTCAA AGCGTTTATA TAGTAGCCAA AATCCTTGAC CATCCAGTA AAGGGCTTTA	3780
AAGCGGTCTT TACGTCCACC ACAAAGAGA AAGACTTGAC CGGAGAAAGA ATCCAATTCA	3840
AAGTGGGTTT TAACTACATA GGCTAATGAG TCTATTCCTT GCCTCATATC TGTCTTGCCA	3900
CAAACAAGGT GAACTTGACC TAAATCACTT AGTTGAATTA TCATAGTACA ATACCTTTCC	3960
TCCGATAATT ATTTTATATC TAGTATACTG GAAGTTGGGG AATTAGGATA GATACCTTGT	4020
TATGACGCGC TTACGTAAC TGTAACTAGC TGCCTAGTTT GATCTTTGCT TCTTCATTGA	4080
TTAGCAGTAG ATTTCAAAAT GATAAAACG CATAGTATCA GGTATTGAAA TGTACTGCCC	4140
CAAAGTTAG ACAGAAAAA TCTAACTTTT GGGGTGTTTT TGTATGAAA TTAAGTTATG	4200
ATGATAAAGT TCAGATCTAT GAACTTAGAA AACAAGGATA TAGCTTAGAG AAGCTTTCAA	4260
ATAAATTGGG GATAAATAAT TCTAATCTTA GGTATATGAT TAAATTGATT GATCGTTACG	4320
GAATAGAGTT CGTCAAAAAA GGAAAAATC GTTACTATTT TCCTGATTTA AAACAAGAAA	4380
TGATTAATAA AGTCTTAC	4398

(2) INFORMATION FOR SEQ ID NO: 294:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 718 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 294:

AGATTTTITAG ACTTTGTCTT TAATCGTTTC TTTTITAGGA TGATTGCGAC ACCTTCTTTT	60
GGCTATTAAC TTAGCAGGA GGGATTATCC TTGGTCTAGC GCCGGCTAGT GCCACCTTGA	120
TGAGCTTATA TGCAGAACAT GGTATAGCT TTCGGGAATA CAGTTTGAAG GAGGCTTGGT	180
CTCTTTACAA GCAAAATTTT GTCTCAAGCA ACCTGATTTT CTATAGCTTT TTAGGTGTGG	240
GTCTAGTTTT GACCTATGGT TTGTATCTCT TGGTGCAATT GCCTCATCAG ACCATTGTTT	300
ATTTGATTGC GACCCTTTTG AATGTCCTAG TAGTTGCCCT GATCTTTTTC GCTTATACAG	360
TATCTTTAAA ATTACAAGTT TATTTTGCCT TGTCTATCG AAATAGTCTC AAATTATCCT	420
TGATTGGCAT CTTTATGAGT CTAGCAGCTG TGGCTAAGGT TCTCCTTGGG ACTGTGCTAC	480
TTGTAGCAAT TGGTTATTAT ATGCCTGCCC TGCTATTTTT TGTAGGAATT GGGATGTGGC	540
ATTTCTTTAT CAGTGATATG TTGGAACCTG TCTATGAAAT CATCCATGAA AAATTGGCGT	600

1326

CAAAATAGAA TGAAGCAGTT TTGGCTACAT ACGCTTCTAA GAACCTATAG TTCAGTGATG	660
ATCATTATCA TTGCGAGTTT TGCAATCTTA CTCTCTTACG CTGTCTGGGA TTCACGTG	718

(2) INFORMATION FOR SEQ ID NO: 295:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 718 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 295:

TCGGTACCAA AATTCTGGAT TTATACTAGC AAAGATCCAA GAGCAAATTA TTAAACAGAT	60
TTAGGTCTAG TTTTCCCTGA ATCATTAAAA GAATTTGAGA GTGAAGATAG TTTTGCAAAG	120
GAAATTTCTG CAGAAGAAGC AAATAAGATA AATGATGCTG ATGTAATCAT AACTTATGGT	180
GATGATAAAA CTCTTGAAGC TTTACAAAAA GATCCTCTTT TAGGTAAAAA AAATGCAATT	240
AAAAATGGTG CCGTTGCTGT AATTCAGAT AATACACCGT TAGCAGCCTC ATGCACTCCA	300
ACACCACTTT CAATAAATA TACTATTGAA GAATACCTAA ATCTTTTAGG AAATGCATGC	360
AAAAATGCGA AATAAAAAAC AAATAAACCT AGGCATAATT TTTATAATCT GCCTAGGTCT	420
TCTTATTACA ATATTTTGT CATTAAAGCT TGGAACAAAA GAAATTAATA TCAGAGATTT	480
TTTAGCAGCT TTTGGAATGG GTAATACAAA TGATGATTTT ATTAAATCAA TTATATATAA	540
TAGAATACCT AGAACTATTT TTGCAATTTT AGCAGGTCT AGTCTTGCCA TAAGCGGTGT	600
ATTGATGCAA TCAGTTACTA GAAACCCAAT AGCTGATCCA GGTATACTCG GTATAAACAC	660
AGGAGCAAGT CTTAGTGTAG TAATTGGTCC TTCTTTTCTAG GGAATTCATC AAGCATAA	718

(2) INFORMATION FOR SEQ ID NO: 296:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1436 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 296:

GAACTAATCA TTTTACAGG ATGAGATTTA CAGCAGAGAG TTTGAAGGCT TTATCAAAGG	60
TTTTCTTGG CATAATGACT TTCTCTCGTT TCCAATTAAT TTTGTGCTA CTTTATTATA	120
CCAAGTCCAC SCTTAAGTTA GATAATAAAT CTAATTAAG GAAGCTAGAA GGATGAGAAT	180
CCAGTGGTC AAGAGTCCCA AACTTAAGCT GATGGGGACA CCCAGAATAA TTTGCTTTTT	240

1327

GAAGGCAAGG CCACGTTCTT CTATATTGGG AAGTGAGAGT TGAATGAGAG AACCAGCTGA	300
TGAAAAGGGT GAGATATTAG TAGATAGAGC GCCAATAACG GTGGCTGTTG TGAGTAAGTG	360
AATATCAATC TGAGGATTTT GAGCACTGAT GATAGCAATG ATGGGAAAGA GGGCTGGAGC	420
TACAACGGAT AGGGTGAAC TAAAGAGTGA CATCACTCCG GCTATCACAC AAAAGAACAG	480
AGGTAACCAG AAATGAGGAA TGTTTGTGT CATGAGGTGC CCTATCAGTG TGAATAACC	540
TGACTTGACC GCTAGAGACA TTAGTAAGCT CATGCCGAG AGCATGATAA TTGTAGCCCA	600
GGGAACCTTA GCTAAATGG CTCTTGCTT CCCTAATTG AGCCTTAAG CGAGGCAGAC	660
CATGAGTATT GAGACAAAGC CAATATCAA TGTTTTTGA TAAGTAGCTA TCCAGGCGAT	720
GTTTGGGAAA ATGAGATGCA ACAAGGAAA AAGCCAAACC AAAACCATGC TGCTGATCAT	780
GAGCAAGGTG GTTGTCTTT GAACCTTGCT GAGGAGTGGT GGTGGTCAA TAGTCAAGGA	840
TGAGTTTGT CTTCCTTAC TATAGTGA CTAAACAGGAT AATAAAGCA AGACGATGAG	900
TGGGTAGATA ATGCTGACGA TAAAGATATG ATTGCCAAGT GAAAAAGCTT GCTCTCCCA	960
TCCCATTGCT TTAACAGGC CTGAAAGAC AATGCCTGAG CTAAGGTTA TCAAATTAGC	1020
CCCTCCTGAA GCTCCCAAT TGACGGCTTG AGCTCCAATC AAAGGGTGT TGTCCGCTT	1080
TTGACAGAGG GTAATCGCTA GAGGACAGCA AACGGCCATA GTAGTGAAAA ATCCAGCACC	1140
TAAAGCAGAC AAAAGGGTTG CCATCAGGTA TAAATCATG TAGAGGGCGT TAGGGTGGT	1200
GCGTGTGCGG TAGAGAATGT GTTGAGCCAA AACATCAAGA GTACCGTTAG TTGTGCAAC	1260
GTTATAAAG AGAGAGACGC TAAAAATGGT AAAAAAGAGT GAGGTTGCC AAAAATGAAG	1320
AAGTTCTTTG GGGCTTAATC CCATGAGAGT GGTGCGATG AGGTAAGAAA AAGCAATAGC	1380
CAGCAGGCCA ATATTGATTT TGGTGGGTA ACCAATTCCA ATGGCTAGAG CAATGG	1436

(2) INFORMATION FOR SEQ ID NO: 297:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1696 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 297:

CCATTTGGGA AAGACGTAA GAGTTGCGAG GGTGAGATTC CAGAAGAATT TTCAATGTCA	60
GCCGTTGACA TGTCTATGAT TGACCACATT CCAGATATGA TTGAAAATGG TGTGGACAGT	120
CTAAAAATCG AAGGACGTAT GAAGTCTATT CACTACGTAT CAACAGTAAC CAACTGCTAC	180

1328

AAGGCGGCTG TGGATGCCTA TCTTGAAAGT CCTGAAAAGT TTGAAGCTAT CAAACAAGAC	240
TTGGTGGACG AGATGTGGAA GGTGCCCCAA CGTGAAGTGG CTACAGGATT TTAATATGGT	300
ACACCATCTG AAAATGAGCA GTTGTTCCTA GTCGCGCGTA AAATTCCTGA GTACAAGTTT	360
GTCGCTGAAG TGGTTTCCTA TGATGATGCG GCACAAACAG CAACAATTCG TCAACGAAAT	420
GTCATTAAACG AAGGGGACCA AGTTGAGTTT TATGGTCCAG GTTTCCTCA TTTTGAAACC	480
TATATTGAAG ATTTGCATGA TGCCAAAGGC AATAAAATCG ACCGCGCTCC AAATCCAATG	540
GAATATTGA CTATTAAGGT GCCTCAACCC GTTCAATCAG GAGATATGGT TCGTGCATTA	600
AAAGAAGGAC TCATCAATCT TTATAAGGAA GATGGAACCA GCGTCACAGT TCGAGCTTAA	660
GAAAGGAAAA GGAAATGATA GAGGCACAGG GTTTCCTAGT GGATAAGCAA ACAAGATGCA	720
TTCAATACCA TAGCAAGCTG GATATTATTG CTTTACAATG CTATGATTGT AAAAAGTATT	780
ATGCTTGTTA TCGGTGTCAT GATTCATTAG AACATCACCC TTTTGAGCCG TATCCCTTAT	840
CTTTGATACA GGATAAGCCT ATTTTATGTG GTGTTTGTCT AAAACTACTA ACATATAAGC	900
AATATAAAGA AAGCTTAAAGT TGCCCTTTT GTTTTCTCG CTTTAATCCA GGTGCCCCAA	960
ATCATAAGGA ACGCTATTTT AAATAGCAAA TCATCTAGTT TTGAAGTAGG AGAAAACCTA	1020
ATTTCAAGAG AAAATGAAGT AAATCTTCCC ACAATAAAC GCATAATATC AAGATTGTTT	1080
AATACCTGAT ACTATGCGTT TTAAAGATT TAAAGACTTT TTTCTTTAT CTGGTATTTT	1140
GACTACTTGT TAAACTGGG TTAATTTTCG ACTGTTTAAAT AGTTATTATG CAAAGTCTAA	1200
AAGGTTAGAA TTGTCAAAC AATCCGTCTA GAGTATGCGT GATGCCAACC GTGGTGGATG	1260
TTCTCAGTCA TGCCGTTGGA AGTACGACCT TTACGATATG CCATTGGGA AAGAACGTAA	1320
GAGTTTGAG GGTGAGATTC CAGAAGAATT TTCAATGTCA GCCGTTGATA TGTCTATGAT	1380
TGACCATATC TCAGATATGA TTGAAAATGG TGTGGACAGT CTAATAATCG AAGGACGTAT	1440
GGAGTCTATT CACTATGTAT CAACAGTAAC CAACTGCTAC AAGGCGGCTG TGGATGCCTA	1500
TCTTGAAAGT CCTGAAAAGT TTGAAGCTAT CAAACAAGAC TTGGTGGACG AGATGTGGAA	1560
GGTTGCCCAA CGTGAAGTGG CTACAGGATT TTAATATGGT ACACCATCTG AAAATGAGCA	1620
GTGTTTGGT GTCGTCGTA AAATCCCTGA GTACAAGTTT GTCGCTGAAG TGGTTTCTTA	1680
TGATGATGCG GCGGTA	1696

(2) INFORMATION FOR SEQ ID NO: 298:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1022 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1329

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 298:

CCGAGTTTAT TATGGTTTCT TCGGAATTTA TCTCAAAGAT TGAATTTGCT TGCAATAAGA	60
AAGAAAGTCT TTATAGTCAA AGCAAATTTA AGTATGCGAT TCGTTCGATG TTCGCAGGTG	120
CATTTTTAAC CTTCACTACT GCTGCAGGTG CAGTTGGGGC TGACTTGATT AATAAAATTG	180
CACCAGGTAG TGGACGCTTC CTCTTTCCAT TCGTTTTTGC TTGGGGCTTG GCCTACATTG	240
TTTTTTTGAA TGCCGAGTTG GTCACCTCAA ACATGATGTT CTTGACTGCT GGTAGTTTCT	300
TAAAAAAAT CTCTTGAGAG AAAACAGCTG AGATTTTACT ATACTGTACC TTGTTCAACC	360
TTATCGGAGC CTTGATAGCA GGGTGGGGCT TTGCTCATTC GGCAGCCTAT CGGAATCTGA	420
CACACGATAG TTTCATCTCA GGTGTTGTTG AGATGAAGTT AGGCCGCTCA AATGAATTGG	480
TCTTGCTTGA GCGGATTTTG GCAAATATTT TTGTAAATAT TGCGATTCTG TCATTTATTT	540
TGGTCAAAGA TGGTGGTGCC AAACCTTTGGC TTGTGTTGTC AGCTATTTAC ATGTTTGTAT	600
TCTTAACAAA CGAGCACATT GCGGCGAACT TTGCTTCTTT CGCGATTGTG AAATTCAGTG	660
TTGCTGCGGA TTCAATTGCC AACTTCGGTG TTGGAATAT GCTTCGCCAC TGGGGTGTGA	720
CTTTCATCGG AAACCTTATC GGAGGAGGCC TCTTGATGGG TCTTCCATAT GCCTTCCTCA	780
ATAAAAACGA AGATACTTAT GTAGATTAAG AAAATGAGCA CGATTGAGTC GTGCTTTTTT	840
CATTTTCAAA ATAAGGTAAT AGCTATTTCT TATATCAAAA TATAGAAAAC TGATATTTGT	900
AxACTATAAC TCAAGGTGCT ACAATATCCT TAATAAAATA ATATGGAGGT CACCTTATGA	960
CTTGTGATTT TAAATnTGAA ACTCTACAAC TACATGCTGG TCAAGTTGTG GCTCCAGCTA	1020
CT	1022

(2) INFORMATION FOR SEQ ID NO: 299:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 663 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 299:

CCTTAAGTAA TCTCTGATAA TATTTTCTTT ATTAGCATAG GGGAATATCG ATATAATGGC	60
TTCAATTATGA GTGGCAGGAA TATCCAATAT GGCAACTTTT CCAATAGATA ATTTAAAACT	120
CATTAATAAA GTTCCTTTAG GTGAAATGTC TATTTTCTTT GATTTTAATG CTAATTTAGA	180

1330

AATAGATTCT CTCGCATTAG TTACATAACC AGATATAGGC ATATCTGATA TAGATACCCA	240
AGGTATTTCA GTTCCCCAAA AAGTAGCTTC ACTGCGTGGA GGAGTTTTTC CTATTCTGAA	300
GTTAACTAGG CTAGCAAATT TAATATATCT CCATGCTTCT GGGATTTCAT ATATAGGATA	360
AGAGGTGTT TCGTCTTTGT TCCCATAATA AGAGTTATCA TCTCCTGGG AAACAATAGA	420
AATGTCCAAA TCTTTCTTTT TAATCTTGCC TTCTTCAAAG AGTTTTGT TTTCTGCTCG	480
TATTTTTTCA AGTAAACTT CGACTGATTC ATCATTTGGG TCTTGTCAA CTAATTTTCC	540
TTGCATAGCA TATTGAAGAA TAGATTTTTT TAGTTTATCT GGAAATTCTT TATCTAGCTG	600
TTCTAGTCTA TTATAACTTT CAGCATATTC ATCTACTTTT TCTAAAGCTG ATTCGATTGC	660
TTC	663

(2) INFORMATION FOR SEQ ID NO: 300:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 881 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 300:

CGTCGCTGAA CATGTCAACA GCAAATTAAA CTAAACAAAC TAAATTATG TGATACTTCA	60
CATAATTTTC TTTAGAAAAT ATTATCAGAA GAAAGTTGAG AAAAATGGCA GAAAAAACAT	120
ATCCTATGAC CCTTGAGGAA AAGGAAAAAC TTGAAAAAGA ATTAGAAGAA TTGAAATTGG	180
TTCTGTCGACC AGAAGTGGA GAACGCATTA AGATTGCCCG TTCATACGGT GACCTTTCAG	240
AAAACAGTGA GTACGAAGCA GCTAAGGATG AACAAGCCTT TGTCGAAGGA CAAATCTCTA	300
GCTTAGAAAC AAAAATCCGC TATGCTGAAA TCGTCAATAG CGACGCAGTT GCCCAGGACG	360
AAGTAGCGAT TGGTAAACA GTCACCATCC AAGAAATTGG TGAGGACGAA GAAGAAGTTT	420
ATATATCGT AGGTTTCAGCT GGTGCAGATG CCTTTGTAGG TAAGGTTTCA AATGAAAGCC	480
CAATTGGGCA GGCCTTGATT GGCAAGAAAA CAGGTGATAC AGCAACCATT GAAACGCCTG	540
TTGGTAGCTA TGATGTAAAA ATCTTGAAGG TTGAAAAAAC AGCCTAAAAA CAGAAAAAGG	600
AGTGGGGAGG CGATGTGCTT CACTCACTCC TTTTCCATT TTGCTACTCT TCGAAAACTT	660
CTTCAAACCA CGTCAGCGTC GCCTTGCCGT ATGTATGGTT ACTGACTTTG TCAGTTTCAT	720
CTACAACCTC AAAACAGTGT TTTGAGCTAA CTTGTCAGT TTCATCTACA ACCTCAAAAC	780
TATGTTTGA GCTGACTTCG TCAGTTTCAT CTACAACCTC AAAACCATGT TTTGAGCCGA	840
CTTCGTCAGT TTCATCTACA ACCTCAAAAC TATGTTTGA G	881

1331

(2) INFORMATION FOR SEQ ID NO: 301:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 949 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 301:

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CCTTTTTTAA TACAAGTTAT TTTGATTFAA CCGGCTTGTC TTGAGCTGTC TGCAAAGCTG      60
TGGCAATCGT ATCTGCATAC AATTTTGCTC CTGCTTCGAT AGTGCTACTC TCACTCCCGA      120
AATGAACCTG GTCTGTTCCA GCCCAAATTT CTGGATGCTC TTTCGCAACT TGATTCCAAT      180
CTGCTATCGT AATGTAAGGT GTCTTCTCTG CCAATTCTCT CATATAGGCA GCAGCCTTCT      240
CAACGATGGC ATAGGTCTCT TTTGTCTTAT CTCCTCATA AGGAGTCACC AAAATCATAT      300
GGTGTCCCTT AGGAAGATTT TTCACGATAC TGTCCAGTC ATCCTTGTA TTCTCAGGAT      360
TATTTACCCC AGTCGCAATG ACCACCGTCT TAGGTAAAAA TTTATTCTGG CTATTATTTA      420
GCATGATTTT ATTTGCGGTC TTGGTTGTTA CGCTGACCTG CGCGTTAATC TGTGCTCCAG      480
GAAGAGCTGT CTGTAGTGCT GTATTTGCCC TTAAAGCCAC TGAGTCACCA ATTAACATAG      540
TGCCATCAGC AATTCCCAAA CTGTTTGCACT CTGCCCGTTC TGCCATCACC TTGGTCTGGC      600
CAATATTTGT TGCAGCTTGC TTCAAGCCAT TGACAGTCAA GTCTGTCTCA AACGCTCCCA      660
CTTGTGGTGC CAACAAGGTC ACCGTGCAGA CAATGATGGT CAAGATTCCT GTACCTGCTG      720
CAAGAATTGC GTGAATATAA GGCAGGGGAC GAAsGGTTTG GACAATAGGT GTGTTCTTGC      780
CTGCAATCCA AGGTTCCAAT ACATAAAATG ACAGACTGGC AAAGCCATAA GAACAAATCA      840
GAGTCAGTAA TACAGCAAGA AGATTTGATG TCAACTGTGA GAAATGATA TAGAAAGGCC      900
AATGGAAAAG ATAAACCGCA TAGCTAGTAT CCGCTAAAAA GCTGATAAT      949
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(2) INFORMATION FOR SEQ ID NO: 302:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 622 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 302:

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AAGATATATT TTTTACACAG AAGTATGCAA AAGTAAAGAG TGCAAAAAAT GGAATTAAAG      60
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1332

CGAAAAATAAA AGCCGTGTAC AGGCGACCAA ACCAACGTAC ACGGCTAAGG AAAAATAACA	120
AAACTCAAGC AAAGGCAAGG CGCGTGGTTT TGTTAGGTAT TTAGCAAGGG GACAAACCCC	180
TTTGTAATA ATCTCCTCTT ATTTTATCAA AATTAGAGGA AAATGACAAC TTAATTTATA	240
AAAAGGAAAA ATGGAGGATA TAAATGGAAA TTCTGTCTAA AGAAATACAG TTACAGGGCT	300
TACAACTTCT TAAACAGACT CTTGAACTT TAGTTGAGCT AGAAAAACAA CGATCTAGTA	360
AGTTAGATTT AATTTCTCGT AAAGAATTAA TGGATCTGCT AGGTATAAGT GCTACAACCC	420
TTGATAACTG GGAGGATCTT GGTCTTAAAC GATATCAGAC TCCGATGGAT GGAGCTAAGA	480
AAGTATTCTA TCGTCCGTCA GATGTGTATT TATTTTATAG AATAAAATAG GAGTTATGAA	540
ATGAAATATG TTAATTTCAA ACCAACTAAA CAAATAGACG ATGGCTTTTA ACTGCCAGGT	600
ATTGACATTC TATTTGTCTC AG	622

(2) INFORMATION FOR SEQ ID NO: 303:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1929 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 303:

CGCTAACTTG CAAACAAAAG AAGAACCCAA ACTCCACAAA TCCCTTACGC AGAAACTCAA	60
TCTCATCTAC TTACCTTGCT GACTTGGTAG AGTATGTTGC AGACAAAGAC TTCTCAGTAA	120
ACGTAATTTC TAAATCAGGT ACAACAACTG AACCAGCGAT TGCTTTCCGT GTCTTTAAAG	180
AACTCTTGGT TAAGAAATAC GGTCAAGAAG AAGCTAACAA ACGTATCTAT GCAACAACTG	240
ACCGCCAAAA GGGTGCTGTT AAGGTGAAG CAGACGCTAA CGGTGGGGA ACATTTGTTG	300
TTCCAGATGA TATCGGTGGA CGCTTCTCAG TATTGACAGC CGTTGGTTTG CTTTCAATCG	360
CAGCATCAGG AGCTGACATA AAAGCTCTTA TGAAGGTGC GAATGCAGCT CGCAAAGACT	420
ACACTTCAGA CAAATCTCT GAAAACGAAG CTTACCAATA CGCAGCTGTT CGTAACATCC	480
TTTATCGTAA AGGCTATGCA ACTGAGATCT TGGTAACTA TGAGCCATCA CTTCAATACT	540
TCTCAGAATG GTGGAACAA TTGGCTGGTG AATCAGAAGG AAAAGACCAA AAAGGTATCT	600
ACCCAACCTC AGCCAACCTC TCAACTGACT TGCACTCACT TGGTCAATTT ATCCAAGAAG	660
GAACTCGTAT CATGTTTGAA ACAGTTGTCC GTGTTGACAA ACCTCGTAAA AACGTGCTTA	720
TTCTACTTTT GGAAGAAGAC CTTGACGGAC TTGGTTACCT TCAAGGAAAA GACGTTGACT	780
TTGTAAACAA AAAAGCAACT GACGGTGTTC TTCTTGCCCA CACAGATGGT GATGTACCAA	840

1333

ACATGTATGT GACTCTTCCA GAGCAAGACG CTTTCACTCT TGGTTACACT ATCTACTTCT	900
TCGAATTGGC AATTGCCCTT TCAGGTACT TGAATGCTAT CAACCCATT T GACCAACCAG	960
GTGTGAAGC TTATAAACGT AACATGTTG CCCTTCTTGG AAAACCAGGA TTTGAAGAAT	1020
TGAGCAAAGA ACTTAACGCA CGTCTATAAT AGAAGAAAAG AGTGGTTTGC CCACTCTTTT	1080
TACTCTCTTT ATCCATAGAA ATTGGACTCA GCCAAGACTT GTGATATAAT ATAGAAAGCA	1140
AAAAGGCAGA CGCCTAGATA ATAGGAGAAA CTATGTCAAA AGATATCCGC GTACGTTACG	1200
CACCAAGTCC AACAGGACTA CTACACATCG GAAATGCTCG TACAGCATTG TTAAATTACT	1260
TGTATGCGCG CCATCATGGT GGAACATTTT TCATCCGTAT CGAAGATACT GACCGTAAAC	1320
GCCATGTCGA GGATGGTGAA CGTTCACAAC TTGAAAACCT TCGCTGGTTA GGCATGGATT	1380
GGGATGAAAG TCCAGAATCA CATGAGAATT ATCGCCAGTC TGAGCGTTTG GACTTGATC	1440
AAAAATATAT TGACCAACTA TTAGCTGAAG GAAAAGCCTA TAAATCTTAC GTTACAGAAG	1500
AAGAGTTGGC AGCTGAACGC GAACGCCAAG AAGTAGCTGG CGAAACACCA CGCTACATCA	1560
ATGAATACCT TGGTATGAGT GAAGAAGAAA AAGCAGCTTA CATCGCAGAA CGTGAAGCAG	1620
CAGGGATCAT CCCAACTGTT CGTTTGGCTG TCAATGAGTC AGGTATCTAC AAGTGGCATG	1680
ATATGGTCAA AGGCGATATC GAATTTGAAG GTGGCAATAT CGGTGGTGAC TGGGTTATCC	1740
AAAAGAAAGA CGGTTACCCA ACTTACAAC TTTCCGTTGT TATCGATGAC CACGATATGC	1800
AAATCTCTCA TGTTATCCGT GGAGATGACC ATATTGCTAA TACACCAAAA CAGCTTATGG	1860
TCTATGAAGC TCTTGGTTGG GAAGCTCCAG AGTTCGGTCA CATGACCTTG ATTATCCACT	1920
CTGAAACTG	1929

(2) INFORMATION FOR SEQ ID NO: 304:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 708 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 304:

AAATTTAAGA AAAAGGAGAC ACATCATGTC TAAAAAGTA TTATTTATCG TCGGATCACT	60
ACGTCAAGGT TCTTTCAACC ACCAAATGGC GCTCGAAGCT GAGAAAGCAC TTGCTGGTAA	120
AGCGGAAGTT AGCTACCTTG ATTATTCAGC CCTTCTCTC TTCAGCCAAG ATTTGGAAGT	180
TCCAACACAT CCAGCTGTAG CTGCTGCTCG TGAAGCAGTT CTCGTTGCGG ATGCTATCTG	240

1334

GATTTTCTCT CCAGTCTACA ACTTCTCTAT CCCTGGTACA GTGAAAACT TGCTTGACTG	300
GCTATCTCGT GCCCTTGACT TGTCTGATAC ACGTGGCGTT TCTGCCCTTC AAGACAAGTT	360
TGTCACAGTA TCATCTGTAG CCAATGCAGG GCACGATCAA CTTTTCGCTA TCTACAAAGA	420
CCTCTTGCCA TTTATCCGTA CACAAGGCGT TGGTGATTTC ACTGCTGCAC GTGTTAATGA	480
CTCTGCCTGG GCAsACGGAA AATTGGTTCT TGAAGAAACA GTCCTAACT CACTTGAAAA	540
ACAAGCTCAA GACTTGGTCG AAGCTATCAA GTAAC TAACA CTCAATAAAA ATCAAAAAGC	600
AAACTAKGAA GCTArCCGCA AGCTACTCaA gCACTGCTTT GAGGTTGTAG ATAGA ACTGA	660
CGAGTGThnA ACATATATAC GGTAAGGCGA CACTGACGTG GCTTGAAn	708

(2) INFORMATION FOR SEQ ID NO: 305:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 781 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 305:

CTTCTTTTCT TGGAAATAGG TGTATAATAC GTTTATTAAA TTTTGTAGGA GTTGTCTATG	60
AAGAAAAGTT TTATCCATCA ACAAGAAGAA ATTTCCTTTG TCAAAAACAC TTTTACCCAG	120
TATTTGAAAG ATAAGCTAGA AGTTGTCGAA GTTCAAGGTC CTATCTTGAG TAAGGTCGGT	180
GACGGAATGC AGGACAACCT GTCTGGTGTG GAAAATCCAG TATCGGTCAA GGTTCCTCAA	240
ATCCCTGATG CTACTTATGA AGTGGTGAC TCACCTGCTA AATGGAAACG CCACACCTTG	300
GCTCGTTTTG GCTTTGGTGA AGGAGAGGGT CTCTTTGTCC ACATGAAAGC CCTTCGTCCA	360
GATGAGGATT CCTTGGATGC AACCCACTCT GTTTATGTTG ACCAGTGGGA CTGGGAGAAG	420
GTTATCCCAA ATGGTAAGCG TAACATCGTT TATCTAAAAG AAACAGTTGA GAAGATTTAT	480
AAGGCTATTC GCCTGACTGA GCTAGCTGTT GAAGCCCGCT ATGACATCGA GTCTATCTTG	540
CCAAAACAAA TTACCTTTAT CCATACAGAA GAATTGGTAG AACGCTACCC AGACTTGACA	600
CCGAAAGAAC GTGAAAATGC GATTTGTAAA GAATTGGAG CCGTCTTTT GATTGGTATC	660
GGTGCGGAGT TGCCAGATGG TAAACCGCAC GATGGACGTG CACCAGACTA TGATGACTGG	720
ACAAGCGAGT CTGAGAATGG CTACAAGGT CTAATGGTG ATATTCTTGT CTGGAATGAG	780
T	781

(2) INFORMATION FOR SEQ ID NO: 306:

- (i) SEQUENCE CHARACTERISTICS:

1335

(A) LENGTH: 846 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 306:

CCCGCATCTT GTAGGGTTT AACGGGCACG ATTTTCATAT CCGTCTTGAT TGTTTTAGCC	60
GCTTCTAGGG CTGTTTGGA GTTGTTTTTC GCGTCCGGAT GCGCCTTTTG TTCTTCTTCG	120
CTAACAGGGT TATCAGGAGC AAAGAAAATA GCAGCACCTG CCCTAGCCGA AGCTACAACC	180
TTCTTATCAA TACCTCCAAT GTCTCCACA TTACCATCGC GGTCAATGGT ACCTGTACCG	240
GCAACAATAC GACCATTACG AAGATCTGGG TGAGCTATTT GAGTATAGAT AGCTAGACTA	300
AACATGAGAC CAGCACTTGG ACCGCCAATA CCAGCTGTTG AAAAGCTAAT TGGGACATTG	360
CTGATTACCT CTGTACGGTC AATCAAGCCG ATTCCAATTC CATTTTGGCC ATTTTCCAAG	420
GTGATGATTT TTCCTTCTGC AGACTTGGTT TGCCCATCCT CTTCATAGGT GACCTTGACG	480
GAATCCCTA ATTTTGGAGA ACTGACGTAA TCAATCAAGT CTTTGGAAT ATCAAAGGTC	540
TGATCATTGA CTGCTGTGAC TGTATCAGAG ATATTGAGAA TCCCTTTAAA GGTGAATTA	600
TCCGTACAT TCAAAACATA AACTCCAAAG TACTTGAGTT CGATATCCTT ACCAGCTGTT	660
TTTAGTCCTT GATACTTGGC CATATTTTCC GATGTTTGCA TGTAGAATTG ATTGATTTCG	720
ATAAATTCAA CATCGGAAGA ACCACCTGTA GTCTCCTGAG CACTACGAAT ATCTGTAAAA	780
GGTGTCACCC AAGCATAAAT CATATGAGCT AAAGTGGCAT GTTGAACACC AACCCTAACG	840
AATTGT	846

(2) INFORMATION FOR SEQ ID NO: 307:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 829 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 307:

GCGATCTGCT TGGGCTTTTC CTATTACCTT ATCTAATAAA TAGGTACGCA GACTCATAAC	60
CATATAAAGT CCACCCCCCA TGGCACCAGC AAGAGCTACA TAAAAGAAGC TCCACAAACG	120
TCCACTTGGT TGGAAGAAAA ATCCTAACAG CCACTGGATG GTTCTTATTA ACAGAAACAT	180
GACTAGGGTC AGCAAACTGA TTAATATGGT TCGCTTCAAA ATCACCTTGC GCTTGACACC	240

1336

AGTTACTTTA CAAATATCCC GATACATCAA GACGTTAGGA ATGATGAGAG CAATGGTTGT	300
TGAAATCAAA GGACCATAAC TGTGGAAGAG GGCGATGGTA GGTAGTTGCA AGACTAGCTT	360
GGCAATAGAA CCATAGATAA AATAGAGAAC GGCCTTGCGG TTGCGGAACA TGGCCTGAAG	420
CATTGGAGAC AAGACCATGT ACAAGCCTAA AATAATAGAC TGCAAACTG CAAAGACAAA	480
TAAGCCCAGA GCCAAACTAT CTGGCTTACC ATAGAAGACC GTATAAAGAG GTTCTCCTAC	540
CATAACCACT CCAACCGTTG CTGGTAGCAA GAACATAAAG AGTAGGGTGA GACTGTCCTG	600
AACGAGACGA GAAGCTGCTT TCAAGTCCCC CTTGACATAG TTTTCCGTCA AAAGTGGCAA	660
ACCAACACTC CCAATCGAAA CCCCTACAGA AATCAAAATC ATCGTGATTT TATTAGGATT	720
GGCTGAGAAA TAAGAAAACA TGACAACCAA GTCCTCATTG CTGTAGTTGG TAAACCAGCT	780
CATACTATTG ATAAAGGTCA GCTGAGTCCA AATCTGGAAG AGCTGGATG	829

(2) INFORMATION FOR SEQ ID NO: 308:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 464 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 308:

CGAACATCTT GCTGGCTGAT TCGTCTGCCG CCATCGCAGC CCCGAACACA TTGCGACCCA	60
TGGCAAGCGG GCTCAATCCG CACATGGGAT CCGTGCCAAA GCCCCGCGTG TGCATCATTT	120
GCTCATCTAG TAACGTATGA GGTTTGCTT CGCTGTGCGAT AAACCGATAT TCAATCGCAC	180
CACTGCTCGT TCTCCGCGGA GGGGAAACCG ACTGCGGTAG GATGAACTCC AGAGAAGAGA	240
GATCACGACC TACCAGGTGC GGCTCGTTGA AGCTGTTGCC GCTTAGCAGC AGGCTCGCCA	300
CCACGCATT CAGAACTCA ACGGGGGTTT GATCGGCGTT CGGTTGCTGA CTAATAACTC	360
GGTGACGGG ATGCGAAGTG GCCACTTCTG GCACACCGTT CTTGTCTTCG TAGAGAGCAA	420
TTGGGAGGGT GGCCAGCGTT TCGGCGATGA GGCGCACGCA GGCC	464

(2) INFORMATION FOR SEQ ID NO: 309:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 982 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 309:

1337

CCGTCTATAA TGGTAATAGA TTTTATTTGG AGGTTTTTAT GTCATTCTA TCAAAAAATG	60
GAGCAGGTAT CTTGGCCTGC CTTCTCATT CCATCCTATC TTGGTACTTA GGAGGATTCT	120
TCCCTGTGGT TGGCGCGCCC GTTTTGGCCA TTTTCATAGG CATGCTCCTA CATCCCTTTC	180
TCTCGTCTA TAAACAACTG GATGCTGGTT TGACCTTTAG TTCCAAGAAG TTGCTCCAAT	240
ATGCCGTTGT CTTGCTTGGT TTTGGTCTCA ATATCTCGCA GGTCTTCGCA GTTGGCCAAT	300
CTTCACTCCC TGTATCCTG TCCACTATCT CAATAGCTCT GATTATTGCC TACCTCTTCC	360
AGCGTTTCTT TGCCCTGGAT ACAAACCTGG CTACCTTGGT TGGAGTAGGT TCTTCTATCT	420
GTGGGGGTTT TGCCATTGCA GCGACAGGCC CGTTATTGAT GCTAAGGAAA AGGAAGTAGC	480
CCAAGCCATT TCCGTTATCT TTTTCTTCAA TGTCTTGGCT GCGCTCATCT TTCCAACCCT	540
CGGCACCTGG CTTTATCTAT CCAATGAAGG CTTGCGCCTC TTTGCAGGGA CTGCGGTCAA	600
CGACACTTCC TCTGTAACGG CTGCCGCCAG CGCTTGGGAC AGTCTTTACC AAAGCAATAC	660
CCTCGAGTCT GCAACCATTG TTAACCTCAC ACGTACTTTG GCCATTATCC CTATCACGCT	720
CTTCTATCC TACTGGCAAA GTCGCCAACA AGAAAACAAG CAAAGCCTGC AACTGAAAAA	780
AGTCTTCCCA CTTTTATCC TTTACTTTAT CCTTGCCTCT CTCCTCACTA CACTACTCAC	840
CTCTCTAGGT GTGTCCAGTA GTTCTTTTAC TCCTCTCAA GAACCTCTA AATTCCTTAT	900
TGTCATGGAC ATGAGTGCTA TCGGTCTCAA AACCAATCTG CTCGCTATGG TCAAAATCCAG	960
TGGAATATCC ATTCATCATG GA	982

(2) INFORMATION FOR SEQ ID NO: 310:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1939 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 310:

CTAGCTGCCA ATATGATTGG GGTGCAGAAG CGCGTGATTA TCTTTAATCT TGGCTTGGTT	60
CCTGTGGTCA TGTTTAACCC AGTGCTTCTG TCCTTTGAAG GATCCTATGA GGCAGAAGAA	120
GGCTGTTTGT CCTTGGTAGG TGTGAGATCA ACTAAGCGTT ATGAAACCAT AAGGCTTGCC	180
TATCGTGACA GCAAGTGGCA GGAACAGACC ATTACCTTGA CAGGCTTCCC AGCTCAGATT	240
TGCCAGCATG AGCTGGATCA CTTGGAAGGA CGAATCATTT AGGAGGAAAAG CAAATGAAAC	300
GAATAGTCTT TGAACCTATT TTTATCGCAA CGACCTGGTA TATCTTTTTA CCGCCCCTTA	360

1338

ACCTGACCAG CTGGGAATTT CTCTTCTTCC TCTGTGGGCA TTTGTTAGTT GTGGCAATAT	420
TATTTGGCTT TGGCAAGGGG ATAAACCTTG TCAAAACGGT TCATGTGCGC CACGGTAAGG	480
CGGAAGCTGC CTAAATCTT GAGGGTTTCA AAATCAATCG GTTAGGGAAA ATTCTGTTAG	540
CTTCGATTGG AGGAATCTT CTCTTGGCAG CTTTGGTTTc CTTGGTAACT TCCAGCATGT	600
TTCAGGCTAA AAATTATGCC AATGTAGTCA CGGTTACGGA AAAAGACTTT ACTGAATTTC	660
CTAAGAGTGA CACCAGTAAG GTTCCTATCC TAGATAGAAG TACTGCTGAA AAAATTGGAG	720
ACCGCTACTT GGGTCCCTA ACCGATAAGG TGTCGCAATA CGTAGCGGCA GATACCTATA	780
CCCAATTGAC AATTGATGGG AAACCTTATC GGGTCACACC ACTAGAATAT GCAGACCCTA	840
TCAAATGGTT TAACAATCAA GCCAAGGGAA TCGGTGAGTA TATTAAGGTG GACATGGTAA	900
CTGGAATGC GGATTGGTG GACTTGAAGA CACCAATCAA GTATTCAGAC TCGGAGTATT	960
TTAACCGTGA TGTCAAACGT CACCTGCGCT TGAAGTACCC GACCAAAATC TTTAAACTC	1020
CATCTTTTGA GGTGGACGAT GAGGGCAATC CTTTCTATGT AGCAACGGTT TACCAAAGC	1080
AATTTGGACT TGCTGTTCTT CGTCCTGCTT CAGTCATTAT CTTGGATGCT ACAAATGGAG	1140
AAACCAAGGA ATACAGCTTA TCAGATGTTT CAGAAATGGT GGACAGGATC TATCCAGCAG	1200
AGGAAACCAT TGAGCAAATC AACTACAACG GCAAGTACAA GGACGGTTTC TTGAATGCCA	1260
TGATTTCCTA GAAAACGTG ACCCAGACTA CCAATGGCTA TAATTACTTG TCTATCGGTA	1320
ATGACATCTA TCTCTACACA GGTGTGACGT CGGCTAATGC GGATGAGAGT AATCTTGTTT	1380
TCATCTTGA AAATATGCGA ACAGGAGAAA TCACTAAGTA TAGCTTGGCT TCTGCGACAG	1440
AAGAATCAGC CCGTGAATCA GCAGAAGGTG CTGTTACGGA GAAATCCTAC AAAGCAACCT	1500
TCCCAATCCT CATCAACCTC AATGACAAGC CTCTCTACAT CATGGGCTTG AAGGACAATG	1560
CTGGCTTGGT CAAAGAGTAC GCCCTGGTAG ACGCAGTCGA GTACCAAAAT GTTATCGTTG	1620
CTACTACAGT GGAAGAGATG CTCAGCAAGT ATGCCAATAA AAACGACCTT GAAATTGACA	1680
ATGCAACGAC AGAAAGCATC AATGGAGTAG TAGCAGACCT CAAATCAGCT GTTATCAAGG	1740
GAGACACTGT CTACTTCTTT AAAGTTGATG GCAACATCTA CAAGGTCAAG GCTTCAGTAT	1800
CCGATGACCT TCCTTACCTT GAAAATGGTA AAACCTTCGA AGGTCAAGTA GGAAAAGACA	1860
ATTATCTCAA GACCTTTAAG CTACGGTAAA AATAGGTTTT TTTCAGAAAG TATATGTTAT	1920
AATAAGGTAA ATTAAGCCG	1939

(2) INFORMATION FOR SEQ ID NO: 311:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 907 base pairs
 - (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 311:

CCTGCTAATA GAGAGAAAGA CTAGGAGTAG AAGTAAGCCA ATTAATAAT GAGAAAGTTT	60
CATACCCCGT CCTTTCATGT AGATTGGTA TCGAAAGATA TCTGCGGATA TAAATGTAAC	120
ATTATTTTTC TAATCTGTCA ATAAAATTTT TGACAATTTA ATAAATACAA CAAGGAGAGA	180
GCAACAAGAC TTTCTCCTTT GTTATCCTAT TCTAAAATGT TTTTACCTTA ATCTGATAAA	240
ATAATATCTT CGAGGGAGTA GCTAGCCGTC CAATCAAGAT ATTGTTTAGC TTTGAAGCA	300
TCTGCTAGGA CACTGGCTGG GTCAGTAGCA CGTCGAGCAA CAATCTCGTG TGGGATTTTT	360
TAATTTAGTA ATTCTTCAGC AGTTTAAAG ATTCTTTGA TAGTATAGCC TTTTGTAGTT	420
CCTAAGTTAA AGATTGAGA AGAAGTGTCT TCTTGAATA GGTAGTTCAT TCCTTTAACA	480
TGAGCCTATG CAAGGTCCAA GACATAAATG TAATCTCGAA TACATGAACC GTCACGTGTA	540
TCGTAGTCAT CTCCAATAT TTTAAGCTA TCATTTTGTG CCAATGCGGT CTGTGTGATA	600
TTTGAATGA TGTGAGTTGG ATTTTTCACA CGCAGACCGT TTGAAGCATC CATTTAGCC	660
CCAGCAACAT TAAAGTAACG GAAAATAACA TATTTCCAGT CGTAGCGATT GGCCATCCAG	720
TAAATCATTC GTTCGCCCAT CAGTTTGTG TCTGCATAAG GGTTCACAGS GTCGAGCAGG	780
GTATCTTCAG TCACCGGCTT GTCAATACAG TTATTTCCAT AGAGAGAAGC AGTCGAAGAG	840
AACATGATTT TTTGAATGCC AACTTCAGAT AAGACTTTGA GAACTTGGTT CATACCAGCA	900
ACGTTGG	907

(2) INFORMATION FOR SEQ ID NO: 312:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2170 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 312:

CCACATAAAG GTAAATATCT TTTGTACTAT CTGGGCATC CAAGAAAAGC AATTGGGCAA	60
TAACAGAGTT AGCCATATTG TCTCAACCG GACCTGTCAG CATAATGATG CGGTCTTTGA	120
GAAGACGTGA GTAAATATCG TAAGAACGTT CTCCACGGCT TGTGTGTTCA ATAACTACAG	180
GAATCATTCA TTTCTCCTTT TGAGTTTAA TTTGTGTTGT CAAATGACTG AAGATAAGAC	240

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TATTATAATA TCTTGGTCAA AAAAGGTCAA ATTTTGTGCTC TGCTTTCATT AGACAGAAAC	300
AAAAACCCAA CCTCCTTTCG TGA CTGGAAA TACTTTTCCA AGTCATTCTT CTTTTCGATC	360
TTATTTTGTA CCGAACAAGC GGTCTCCAGC ATCTCCAAGA CCTGGAACGA TATAACCGTG	420
TTCGTTCAAA CGTTCATCCA AGGCTGCTGT AAAGATTCTT ACATCTGGAT GAGCTTCTTG	480
AAGGGCTTTT ACACCCTCTG GAGCAGATAC AAGGCAGACA AATTGATAT TTGATGCGCC	540
ACGTTTTTTA AGAGAATCAA CAGCCAAGAT TGCTGAGCCA CCTGTTGCCA ACATTGGGTC	600
TACTACAAAA ATTTGACGTT GGTCAATGTC CTCAGGCAAT TTCACCAAGT ATTCAACTGG	660
TTGAAGTGTT TCTTCATCAC GGTACATACC GATGTGGCCA ACTTTAGCAG CTGGAACCAA	720
GTTCAAGAGA CCATCAACCA TCCCGATACC TGCACGCAAG ATTGGGACGA TGGCCAATTT	780
CTTACCTGCC AATTGTTTTT GAACTGTTTT TGTAATTGGT GTTTCGATTT CCACATCTTC	840
TAGTGGAAGA TCACGAAGTA CTTCATACCC CATCAACATT GCAATCTCAT CTACTAGCTC	900
ACGAAAAGCT TTTGTAGAAG TATCTGTACG ACGCAAGATT GACAATTTGT GTTGAATCAG	960
TGGGTGATTA ATAAC TTCAA TTTTCCCAT TTTTGGAAAT CCTTCTTCA ATTTATTCTT	1020
CTTATTATAC CAAAAACGG TTTAAAAATC TTTCTAAACC ATTTATTTTT GATAATTTTT	1080
ACATTAGATC AGCCTCTTTA AGAGCTGTCT GTACTGTCTC AAGTGGTAAA TGGGTCAATT	1140
CTGTCCCTTT TTCTTGATAA AGGTATTGGG CGTAGTCGTC CATTCGGTAC TGGTTGATAT	1200
AAACCACGCG CTTGCAGCCG ACCTGAAGCA ATTGTTTTGT ACAGTTGAGA CAAGGAAAAT	1260
GGGTTACATA GGCTGTAAAG CCTTTGGGAA CACCACGCTC AGCACCTTGA AGGATAGCAT	1320
TGACCTCAGC GTGAAGGGTG CGAACGCAGT GGCCTTCAAT GACCAAACAT TCGTGATCAA	1380
TACAATGCTC AGTCCCTGAC ACCGAACCAT TGTAACCAAGT GAAATAAACC TTATTATCTT	1440
TTACCAGAAT CGCGCCCACT TTAGCACGTT TACAAGTGGG ACGATTGCGA ATTAGTAGAG	1500
CTTGGGCTGC AAAATACTCA TCCCAGGCCA GTCTTTTTTC AGTCATCTCT TTTCTCCTTT	1560
TTCTCTATTT TTTAAAAAAT GGTAAACCTA AATCTGCAAT CTTTTCAGCT GGTACCTTCA	1620
TGCCATCCTT GATCCATTTT AGAAGGACAG AGACGATGGC TGAGCTCCAG AAGGAATGAA	1680
GATAAGAGCT GACACCTTTT GATTTCCCAT GGTATTTTTT TAGAAATTCC TGCATGGCTT	1740
GGACAAAGAT TTTTCCAGA TGTAATCCA AGGCCAATTG AATTACTCTA GCTTCCTTTC	1800
TGGCCTCCCG GAAAAGGTGA ACCCAAACCA AATAAAGGTC TGTCTTTAAA TCGTAATGAT	1860
GCAGCTGTTT CATAATATTG TGGACAGTTC GTTTAAAGAC GCTCTCTAAA ATTTCTCTTT	1920
TGGAGTCATA ATTGCGATAA AAGGCCGCAC GCGAAACACC TGCACGTTTG ACCAATTCAG	1980
AAATACTAAT CTTGGTCAGT TCCTTTTTTT CCAAGAGTTG CAAGAGGGCT GTTCAATGG	2040

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CTTCTCTGGT TAATAAATTG GATTCTTGGT TTGATTTTCT GAGATTTTCA AGAGACTTTT	2100
CAGAGATTCT ACGTTCAGAC ATAACATTTT CTTTCTACTT GTCACAACAG ACGGATGATG	2160
CTTTTGTTTC	2170

(2) INFORMATION FOR SEQ ID NO: 313:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 539 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 313:

ATCTGCACGA ATCAGGGCTT TCTAAGTGAC TATTTCCACC GAAATATTAT TTATATCAGG	60
AGGACATTCA TATGTCACGT TATACAGGAC CATCTTGGAA ACAAGCTCGT CGTCTTGGCC	120
TTTCACTTAC AGGTACAGGT AAAGAATTGG CACGTCGTAA CTACGTACCA GGACAACACG	180
GACCAACAA CCGTTCTAAA TTGTCAGAAT ACGGTTTGCA ATTGGCTGAA AAACAAAAAC	240
TTCGTTTCAC TTACGGTGTA GGTGAAAAAC AATTCCGTAA CTTGTTTCGTA CAAGCTACAA	300
AAATCAAAGG CGGAATCCTA GGTTCAACT TTATGCTTCT TTTGGAACGT CGTTTGATA	360
ACGTTGTTTA CCGTCTTGGT CTCGCGACTA CTCCTCCTCA AGCTCGTCAA TTCGTAAACC	420
ACGGTCACAT CCTTGTGAC GGGAAACGCG TTGATATCCC ATCATrCCGC GTAACCTCCAG	480
GTCAAGTGAT CTCAGTTCGT GAAArATCAT TGAAAGTTCC AGCAATCCTT GAAGCAGTA	539

(2) INFORMATION FOR SEQ ID NO: 314:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 667 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 314:

CCGGTTTTCG TCCTTCTCTA CGGCTACGAC GTGATGTATC TCTGATGATA TCCACTGTTT	60
CTGTAGCAGG CGTAGGTGTT TCTGGACCTG CTTGTTCTGC TTTTCTCTCT GCCGTCGTAT	120
AGGAAACAGC TACCCTTGTT GGGGTTTCAT TGTATTCTCT TTCAAGTTTC TTAGGTCTAA	180
CAGGACCTGG ACCTGGTCTT GATCCACTTT CTTCCGCTGG AGAAGAAGGT ACATCTTGAC	240
TTGGATGACT TGAACACCA GGAGTTTCTC TTTGAATCTC ATCTGCTGGA GAAGCTGGTA	300